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CONGRESS AS AN OBJECT-LESSON.

CONGRESS has been in session for six weeks, without having passed any law, good or bad. The country, meanwhile, is recovering from the financial troubles which Congress was expected to relieve, finding that it has been more scared than hurt. Real distress comes to a country through a failure of crops, depriving the people of the usual rewards of industry; or through over-speculation, by which many people at once are found to be in debt beyond their means to pay; or through a great depreciation in currency, which depletes the wealth of every holder. Fire, flood, or pestilence may bring ruin upon a small country. But none of these things have happened lately in the United States. We have fallen into trouble mainly through listening to predictions of disaster, without first stopping to ask what reason there was to expect disaster. While some other countries have had financial reverses recently, in none of them do we find legislatures in extraordinary session trying to devise means of relief. This doubtless is because their longer experience has taught that there are some situations in which, if the people want help, they must help themselves. The most important result of the present session at Washington will be found, we believe, in its having afforded the people an object-lesson in the futility of depending upon Congress for a remedy for every public ill.

There are many things which Congress can do, acting within its proper province, which are necessary and beneficial, but the monetary legislation of the past few years does not belong to this category. The present session is the outgrowth of past attempts by Congress to force silver into use as money at a higher valuation than is accorded to this metal in the world's markets. No man will claim that Congress can fix a permanent, unvarying price for rubber, or sugar-beets, or strap-hinges, as compared with gold. No sort of stamp or label or penalty or reward that the government can devise will make Para rubber worth more in New York than in London, or prevent fluctuations in price based upon the relations of supply and demand. When people learn that silver can be given an artificial value no more than rubber—which is the truth—the financial problems remaining to our legislators will be found greatly simplified. India has given up the experiment in despair, after trying long to maintain silver at a higher coinage-value than its bullion-value. The result has been a disturbance throughout the world, including the United States, though the effects in this country have been ascribed to the Sherman law, so much do we exaggerate the importance of Congress and its acts. If the Sherman law had never been passed the Indian silver troubles would have come about just the same. It must be understood that all the silver in the world is not ours. Prior to thirty years ago the annual silver production of the United States was less than the salary of a modern railway president. We have since produced a great deal of silver, and yet not so much more than Mexico, while there are rich mines in many other countries. While we may legislate as we like, therefore, we will continue to see

silver values regulated by the world at large very much as if the United States did not exist on the map.

Undoubtedly the Sherman law ought to be repealed, as a part of the mistaken policy which has prevailed of trying to make silver worth more on United States soil than it is on the other side of boundary-lines all around us. But the real effect which this law has had has been little mentioned. It provides merely that the Treasury shall buy monthly so much silver bullion, at the market price, payable in notes to be redeemed "in coin." Now it happens that no seller of bullion yet has elected to take silver coin in payment, but every one of them has demanded gold. When the silver-men have thus emphatically repudiated the silver dollar in their own country, should we wonder if foreigners, looking on, have become distrustful of the future of our financial and monetary systems?

We have spoken already of the extra session of Congress as an object-lesson. There is another in the silver situation as emphasized by the Sherman law, teaching that while none of the money of a country may be bad, some may be better than the rest, and that disturbances in trade and industry are bound to grow out of unequal standards of value. Still another thing which recent events have made plain is that the prosperity of the country by no means depends upon the amount of money in existence. When this fact is properly appreciated, so that the public will not be clamoring constantly for "more money," regardless of its excellence as money, perhaps our legislators will find themselves more free to act with reference to the common sense of finance.

OBITUARY.

AUGUSTUS N. LORING, president of the Columbia Rubber Co. (Boston), died at his residence, No. 325 Beacon street, on Wednesday, August 23. Mr. Loring was a prominent rubber-clothing manufacturer, but locally was better known from his former interests in the dry-goods business. He was born in Cambridge, and began his business career as clerk in a small store on Hanover street, Boston. In 1860 he formed the partnership known as Loring & Kempton, with a store on Hanover street and another on Tremont row, the business being wholesale dry-goods. At the end of a few years this partnership was dissolved and a new firm formed under the name of Loring, Waterhouse & Co., with a store on Washington street. This business was run successfully until 1881, when he purchased an interest in the Columbia Rubber Co. Two years after this he was elected president of the company, which position he held until the time of his death. He was a Mason, a member of the Art and Orpheus clubs of Boston, and was quite popular socially. Mr. Loring was very successful in business, making a great deal of money during the war times, and later in his rubber business. His last illness was brought about by a mental malady said to be the result of overwork. He was fifty-three years old at the time of his death.

THE INDIA RUBBER WORLD is informed that Mr. S. M. Runyon, for a number of years agent for the Goodyear Rubber Co. at their San Francisco store, died in that city of typhoid fever on August 25. Mr. Runyon was to have taken charge this month of the new store opened by the Goodyear Rubber Co. at Portland, Oregon.

A TRADE ECHO FROM INDIA.

TO THE EDITOR OF THE INDIA RUBBER WORLD: We enclose you a recent letter, received from Bombay, containing inquiries for our goods, and also a card, which will explain itself.

We think it might be a very good advertisement for your paper, as showing the channels it reaches, for you to reproduce this card. Business with us is good, and we attribute the frequent calls we have for our goods from far-away countries to the advertisement which we carry in your paper. Yours very truly,

THE WESTERN LINOLEUM CO.

Akron, Ohio, August 19, 1893.

કાસમ વીશરામ બનાતવાલા

જનરલ મરચન્ટ અને કમીશન એજન્ટ.

જમીન મતનો ગરમ કાપર, ગાડીની રીત, કાચની રીત, આઈલ કાર્પીટ, બરશક કાર્પીટ, ઉત્તમ ગીયા, ગાડીના બતન, ધમણના ચામરા, શુપરીના ચામરા, મરાઠાના ચામરા, શામીલેધર તથા બીજી બધી જાતના વીલાતી ચામરા જથાનક તથા પરચુટલુ કીફને તથી વેચનાર.

નં. ૨૬ રોક મેમન ઈસ્ટરીટ. મારફીટ હુવારચાલીના નાકે

CASSUM VISRAM & CO.,
WHOLESALE AND RETAIL MERCHANTS
AND COMMISSION AGENTS.

All kinds of woolen cloth and carriage lace, oil cloth, oil carpets, woolen carpets, carriage buttons, enamelled leather, Japanese leather, morocco leather, chamois leather, and other kinds of English leather, at moderate prices.
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[THE card referred to is reproduced above. It is printed in the Gujarati dialect. The translation which follows was made for THE INDIA RUBBER WORLD by a distinguished Brahmin now visiting the World's Fair.—THE EDITOR.]

FOREIGN STUDENTS OF OUR INDUSTRIES.

THE offices of THE INDIA RUBBER WORLD have been favored with a visit from Herr Wilhelm Pahl, of Dortmund, Germany, who has come to the United States bearing a commission from the Society for the Advancement of Arts and Industries, for the purpose of examining and reporting upon the rubber exhibits at the World's Columbian Exposition, and also the principal rubber-manufactories in this country. As the president of this society is *ex officio* a member of the German cabinet, Herr Pahl is practically a representative of the government on this errand. He is an India-rubber manufacturer's chemist by profession, and has written and published several contributions to the literature of this subject, including the work, "Investigation of the Beneficial and Detrimental Influences of the Usual Additions to India-rubber and Gutta-percha," which was reviewed in the issue of this journal for September 15, 1892.

We have had a visit from Herr J. B. Breuer, a member of staff of the Royal Ministry of Public Works of Siam, who also comes to America with a view to studying the World's Fair. He has favored us with the article on "The Gutta-percha Industry in Siam," printed on another page this month.

THE Colchester Rubber Co. was the only rubber-shoe concern that did not close during the summer months.

THE "PARA RUBBER" OF BOLIVIA AND PERU.

By Hawthorne Hill.

I.—BRAZIL HAS NO MONOPOLY.

THE real "undiscovered country," if one still exists, is that great rubber-bearing territory for which Pará is the outlet. Enterprise in the United States has been too busy hitherto in the development of the West, and the great powers of Europe in struggling over disputed territory, for any but a few scientists to feel curious about the secrets of the great Amazonian basin. All honor to such men as Markham, and Raimondi, and Agassiz, and Orton for their zeal in exploring the sources of the Amazon; but too much of the knowledge which they gained is buried in books unknown to the world at large. Room for political aggrandizement or military prowess in dealing with South America has been wanting; scarcely more has there been for forcing European products upon a continent which is the most sparsely settled of all the world; the products of South America have been such as could be secured from other lands, excepting cinchona-bark, and that England has undertaken to supply the world with, from her Cingalese plantations. There is India-rubber, to be sure, first introduced to the world from Brazil, but it has been the policy of Europeans to gain a supply of this commodity, as far as possible, from their colonial possessions. England is even now trying to repeat in India with caoutchouc the success already gained there with quinine. But preëminence in this respect cannot yet be denied to the valley of the Amazon. "No rubber in the world is equal to the Pará rubber (*Hevea*)," says a distinguished Englishman, "and if only a sufficient quantity could be obtained it would drive the stuff from Africa and India out of the market."*

The explorers of South America have brought to light less information about rubber and its sources, perhaps, than about any other product or feature, many of them having performed their work before the importance of this gum had become recognized. In the United States expedition down the Amazon and its tributaries, in 1851, Lieutenant Herndon, U. S. N., learned at Garupá, a miserable little village not far from the seaboard, that: "The principal trade of the place is in India-rubber, obtained on the Xingu and the neighboring streams." He found rubber "bottles" and shoes made there, but his brief account of these curiosities is about as instructive as the stories of the rubber-tree in "The Swiss Family Robinson." In Mr. Markham's interesting "Travels in Peru and India," published in London in 1862, rubber is scarcely mentioned, although in the former country the author traveled near, if he did not touch, the richest sources of rubber in existence. But he was in search of the cinchona-tree, to be transplanted in India, in comparison with which rubber was then of small consequence.

Incidentally enough information concerning rubber has come from later explorers to show that Brazil has by no

means a monopoly of the best supplies. Many of the vast tributaries of the Amazon which flow from the south—some of them greater than any European river—have their sources in Bolivia and Peru, and these republics are to be credited with a good share of the rubber exported from those streams by way of Pará. It is beginning to be known that in these countries the choicest rubber is being gathered in practically virgin forests which are almost limitless. Twenty-eight years ago William Chandlee, in the interest of geographical science, explored the river Purús and its tributaries. They have since become the seat of the most thriving rubber industry in South America, and many enterprising Bolivians have formed permanent settlements upon their banks. The Purús, which strikes the Amazon above the port of Manáos, has now been explored for 1866 miles, the greater part of which distance is within the limits of Peru. The rubber carried out of this river by steamers in 1888 was valued at \$2,000,000. Dr. Edwin R. Heath, an American, in August, 1880, was the first to explore the Bolivian river Beni to its mouth, he having reached the head-waters of the river by traveling overland from the Pacific coast. He found a few men engaged in the rubber industry on its banks, but within four months after his discoveries 650 rubber-gatherers were at work there, and the increase has been constant since. The trees were large, yielding rubber of the best quality, and he estimated that there were 10,000 on an area which he measured, of five miles square.

A similar story comes from each of these mighty rivers: the forests in the valleys are boundless, and everywhere there are rubber-trees. Colonel George Earl Church says that of an area of 2,400,000 square miles in the Amazon valley less than 10,000 are cultivated. The rest is under forests, practically unknown to the map-makers, without roads other than the water-ways, and rightfully called an "undiscovered country." The same authority says of the sources of rubber: "In 1851 the [total] exports from Pará, at the mouth of the Amazon, were only £400,000; in 1868 they had reached £1,100,000; in 1891 the export of India-rubber alone was 18,000 tons, worth £5,000,000. Now a great deal of that went from Peru, and a great deal more went from above the falls of the Madeira, from the Mayutata, and from the lower Beni, rivers of Bolivia, which were unexplored twelve years ago."*

II.—RESOURCES OF THE BENI.

THE Beni-river country has attracted some interest lately in the United States, through the discoveries made there by Baron Henri Arnous de Rivière, who this summer escorted a party of American visitors to the upper waters of that stream, including the head of a leading firm of rubber-brokers in New York. Before starting, the members of the party procured a charter for the Beni Gum Co., under the laws of New York State, with \$500,000 capital, with a view

*Clements R. Markham, before the Royal Geographical Society, March 28, 1892.

*Before the Royal Geographical Society, March 28, 1892.

to being prepared to take advantage of any opportunity for engaging in the rubber trade of that section. The Beni is one of three great rivers,* the union of which forms the Madeira, which in turn flows into the Amazon below the city of Manáos. The source of the Beni is in the neighborhood of the important Bolivian city of La Paz, so near the Pacific that Baron de Rivière has been interested in improving the outlet which has long existed on that coast for Beni produce, instead of letting it float for thousands of miles by water to Pará, on the Atlantic. India-rubber, by the way, is not the only profitable item of export from that country. Mr. Clements R. Markham last year called attention to the fact that the cinchona-bark gathered wild in the Andes country uniformly commanded a higher price in London than the cultivated product in India, and a heavy traffic in this article is still carried on in Peru and Bolivia. A single citizen of La Paz, Otto Richter, owns a million cinchona-trees on the Mapiro, a branch of the Beni river. The exportation of other forest products and of hides, to say nothing of the prospective rich mines of the Beni country, affords a further reason for a desire for improved transportation facilities for that section.

It must be understood that the water-course from La Paz to Pará is by no means unobstructed. Sixteen hundred miles from the Atlantic, at San Antonio, the British steamers are stopped at the first of the series of formidable falls on the Madeira, to pass which canoes must be unloaded and dragged on wooden rollers through the forests, entailing a very heavy expense. One explorer reports having spent thirty-four days in proceeding upstream 161 miles, past the seventeen separate falls. Rubber being a valuable article of freight, however, is sent over the falls at a profit. A railway around the falls, once undertaken jointly by Brazil and Bolivia, was abandoned on account of disagreement, but there is yet hope that it will be completed. But a worse obstacle to transportation long existed in the fears entertained on the upper Beni of danger in following that river to its mouth. An official report drawn up in 1827 for the use of the prefect of La Paz said of the Beni and its branches: "Along the shores of these rivers it is believed that many barbarous natives reside," and the same impression prevailed both among the natives up the river and among travelers until Dr. Heath's descent of the river from La Paz in 1880. When he had passed the little rubber camp on the river, the Indians there put on mourning, believing that he had voluntarily gone to his death. Instead of large numbers of man-eating savages, however, he met only four families of harmless Pacavara Indians, and no other sources of danger were encountered. His safe voyage gave an extraordinary impetus to the rubber trade, as will be better understood from a bit of history which he reported to the Royal Geographical Society.

In 1869 or 1870 reports coming from Cavinast† that the

*The Mamoré, rising in Brazil; the Beni, rising in Bolivia, and the Mayu-tata, which comes from Peru. The latter is also described, on different maps, as the Amaru-mayu and the Madre de Dios.

†On the river Madidi, a tributary of the Beni, two days' pull from the main stream.

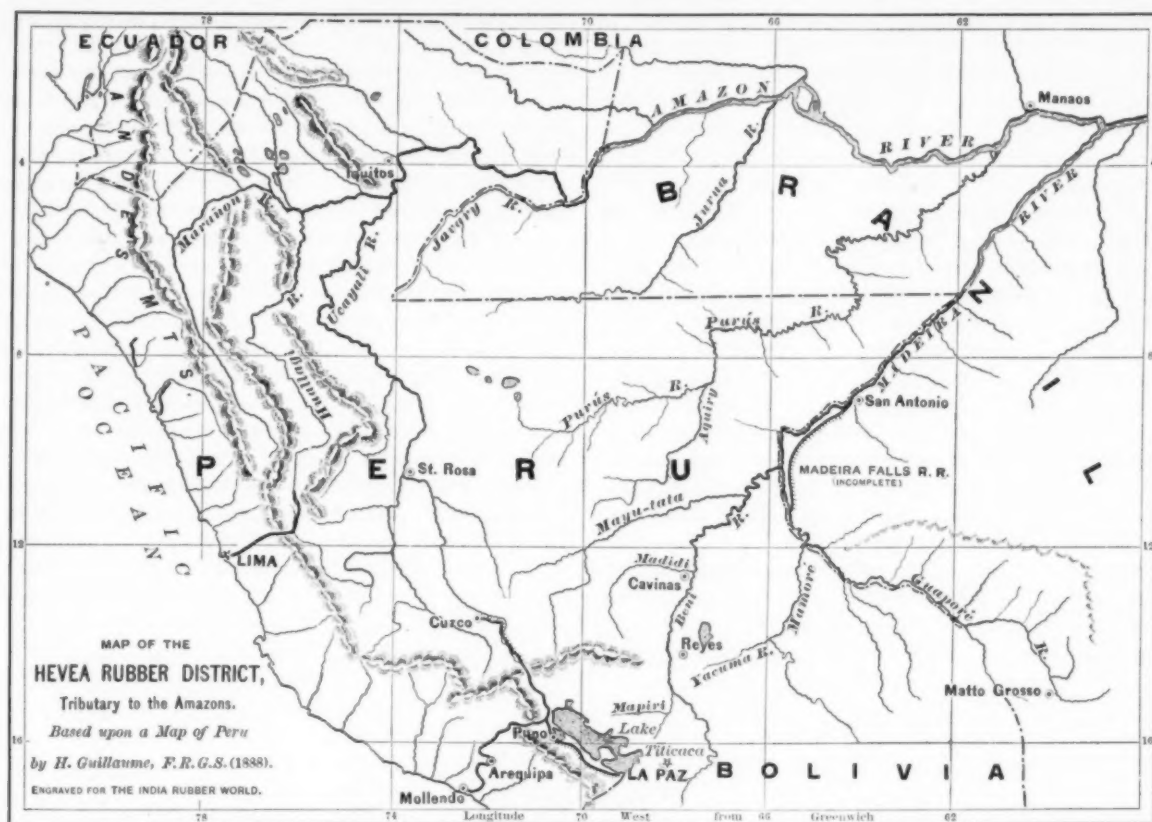
India-rubber tree grew in that place, two Bolivians, Francisco Cardinas and Pablo Salinas, went there from Reyes and obtained specimens of the rubber, which they sent to Europe. The quality proving excellent, a few men entered into the business of rubber-gathering, but confined their attention to the region about Cavinast. The rubber was sewed up in hides, in packages of 150 to 200 pounds, but instead of sending it down the unknown Beni, the rubber-gatherers seem to have rowed it up-stream for 200 miles to Reyes, thence transporting it in carts across the country for fifty-seven miles, where another water-route to the Madeira was gained. This indirect means of transportation consumed about one-third of the time of the rubber-gatherers, seriously detracting from their labors in the forest. Only the single expedition of Dr. Heath was needed to show the world that the Beni was navigable, since which time rubber has been shipped down-stream direct, and in constantly increasing quantities. Mr. Markham is one of those who believe that the future rubber trade from this section will be enormous. Minchin thinks it natural to suppose that rubber-trees abound also on the Mayu-tata, and adds: "Those on the Mamoré and lower Itinez (Guaporé), though giving rubber of a superior quality, do so in less quantity."

The Beni country was first thoroughly described by Thadeus Häenke, an engineer from Prague, sent by the king of Spain in 1799 to report upon his possessions on the Pacific. Häenke penetrated to the Beni, where he found valuable forest products in "extraordinary abundance," but he felt that it was "a pitiable sight to see the king's subjects engaged in the unnatural course of carrying the products of this section to the Pacific, when they might more easily float them down-stream." He pointed out reasons for the belief that down the Beni lay a new and more direct route to Spain, and petitioned for an equipment for making a survey of it, but his suggestion fell upon deaf ears. Who knows but, if he had found another Isabella at court, that his researches might have redounded more directly to the benefit of Spain than did even the voyages of Columbus? Instead, poor Häenke sank into oblivion, the fabulous cannibals still peopled the river banks, and a half-century later another explorer wrote: "The department of the Beni is considered by the government [of Bolivia] the dungeon of this country. When a man's opinions are thought by the president to endanger the public peace, he is banished to the Beni."* In Häenke's list of productions of "the southern affluents of the river Amazon" (he did not see Brazil) mention is made of "gum elastic."

III.—HIDDEN RICHES OF PERU.

IN writing of Peru, which he called "the France of the South American continent," the late Professor James Orton wrote that "no other country can furnish 6000 miles of internal navigation for large vessels." Not only does the mighty Amazon rise in Peru, leaving many miles of its length before crossing the boundary line into Brazil, but seventeen navigable affluents of that river lie within

*Lieutenant Lardner Gibbon, U. S. N., Expedition of 1851.



the former country, or help to outline her boundaries. Here is a country as large as England, France, Spain, and Portugal combined, with two-thirds of its area embraced in the *montaña*,—an immense region lying along the slopes of the eastern range of the Andes and extending to the Amazon. Here for the most part is one boundless forest, as yet in a primitive state of nature, "in which flourish the India-rubber and cinchona trees, as well as the coffee, cocoa, and vanilla, while torrent streams from the mountain bring down with them rich deposits of gold."* These are the rivers on which British steamers ply, carrying into the Amazon valuable cargoes of India rubber which is taken into account at Pará and goes to all the world as the product of Brazil. But suppose there should be subtracted from the Pará shipments all the rubber produced on the west side of the Madeira above 6° 52' south latitude, and west of the Mamoré; on both sides of the Beni for a great distance and on all sides of the Mayu-tata; on the Purús for the greater part of its length; on the head-waters of the Jurua, and on the west banks of the Javary. The showing made by the remainder of the rubber shipped would diminish somewhat Brazil's importance as a rubber country. But this is not all that belongs to Peru. The Ucayali, yielding more rubber than any other affluent of the upper Amazon, lies wholly within Peru, as do several other important streams. The idea that Peru produces only the comparatively small amount of rubber

which is shipped from her Pacific ports, and only the cheap quality known in the New York market as "caucho," has been exploded by the results of the expedition of Alexander Ross to the headwaters of the Ucayali in the interests of the Peruvian Corporation (founded by the Grace family, of New York), and by the testimony of such observers as Markham to the effect that all the rubber in the Amazon provinces of Peru is the *Hevea*, while the *Castilloa* (which yields the "caucho" of commerce) is confined to the region west of the Andes.

It is not surprising that many of the real sources of rubber should long have remained concealed, in the light of the slow progress of geographical knowledge which has been noted in this paper. Besides, the work of rubber-gathering has been performed largely by Indians, who have no desire to come within closer contact with the world, while the great buyers of rubber have been content to stop at the seaboard and wait for the supplies to come down the Amazon,—it mattered not from what locality. The isolated condition of the rubber-gatherers is well illustrated by M. Olivier Ordinaire in a report on the Amazon provinces of Peru.* On the Ucayali rubber is worth, to the laborer who supplies it, only a small sum, payable in goods. This system suits the Indian, who fears neither hunger nor cold, who does not know what the words wealth and misery mean, and who only works in order to obtain some object which he has seen. If one

*H. Guillaume, F. R. G. S., "The Amazon Provinces of Peru." London, 1888.

*Communicated to the Geographical Society of Paris, 1886.

ascends the rivers as far as the country of the Campas, who live in a region towards the Andes, natives are met who have no idea of the value of goods as compared with silver. A piece of money has no more value to them than a perforated bead. In the confluence of the rivers Palcaza and Chuchuras, in a region which had been supposed to be uninhabited, M. Ordinaire found the dwelling of a German, established there about four years. He had succeeded in drawing about him some sixty Campas families, who could gather a considerable quantity of rubber annually. According to a calculation made by the German the rubber was worth in Iquitos \$11 to \$12 per arroba (=25.32 pounds), while he obtained it for a few pence per arroba, paid in goods to the Campas. The latter, besides, took care of his plantation and provided him with an abundance of game. The increase in distance and expenses of transportation are far from counterbalancing such advantages. It may be said in general, concludes M. Ordinaire, that for the rubber-gathering industry the most distant place is the best for the colonist.

Forty years ago Mr. Markham, journeying eastward on the frontier of Peru, after a day's journey in the forests, came to San Miguel, an isolated farm rather than a village. He found there an establishment for collecting India-

rubber, belonging to Don Manuel Ugalde, an enterprising young Quiteño artist living at Cuzco. "It consists of eight or nine Indians who go out weekly into the forests and search for the India-rubber tree. They usually return with several *yapas*, or joints of bamboo about three or four feet high and four inches in diameter, filled with the juice. These *yapas*, which have a large hook, used as a handle, at one end, also serve for buckets and pitchers."*

Doubtless large quantities of rubber are produced today in localities as remote as the examples here given. Wherever the Amazon valley has been penetrated, on the south side of that stream, the *Hevea* has been found, and in most cases there has been somebody gathering the sap. The situation is similar to that in the Congo basin, in the darkest recesses of which Stanley found native rubber-gatherers. The world's interest in the rubber area of the Amazon is bound to be much greater, however, than in any other sources of this commodity, on account of the higher grades produced there, and it will be scarcely less important than the discovery of a new continent if it should be found that the *Hevea* rubber grows outside of Brazil over an area probably equal in extent to that on which it is found in Brazil.

*Markham's "Cuzco and Lima," London, 1855.

THE RUBBER INDUSTRY IN FRANCE.

By Mons. E. Chapel, Paris.

THE manufacture of rubber in France, considered as a whole, includes every possible variety, although in varying degrees of importance. In France, as everywhere else, the use of rubber has undergone such a development that there exists no industry which does not depend upon it in a greater or less degree; in all houses, in all interiors, we find rubber in some form or other.

Ever since the foundation of this industry the French manufacturers have applied themselves to the production of the various sorts of merchandise, each devoting himself more especially to a given variety. Hence a specialization which has permitted the achievement of great progress. But for nearly ten years now this specialization has shown a tendency to disappear; each manufacturer seeks to add to his own specialties the articles handled by his competitors. This change of system has been prompted to a certain extent by the Brazilian speculation in crude rubber; it is also due to the very great competition between the different manufacturers.

To remedy this state of things efforts have been made to establish uniform prices, but the difficulty of insuring adherence thereto has stood in the way of success.

The number of rubber articles is, one might almost say, unlimited, but nevertheless the different varieties of man-

ufacture may be classified for our present purpose under a few principal heads:

- Technical or industrial rubber,
- Parisian fancies: toys, tobacco-pouches, etc.,
- Surgical articles,
- Waterproof goods, garments, and footwear,
- Elastic goods, and, finally,
- Gutta-percha and cables.

Under the first head belong all the articles used in industry and the arts:—valves, washers, frames and thongs, sheets of all sorts, tubes, belts, brakes, roller-mountings, etc., and all hard rubber articles. The army and navy departments, together with the railroad companies, constitute the most important customers of the French manufacturers in this line. Contracts are awarded to the lowest bidder and are generally for the period of one year. In addition to these great consumers, there is a multitude of ordinary customers, by the renewal of whose orders throughout the year the factories are kept in operation.

To complete our survey of industrial rubber, we must add that from time to time new uses of rubber are discovered which, in themselves alone, constitute real branches of industry. Thus we have seen houses put in a special plant for the manufacture of rubber horseshoes, tubing for the preparation of artificial flowers, etc. Finally, the considerable impetus given to bicycling of late years has originated the articles known as "velocipede-tubes," or "pneumatic tires," the manufacture of which constitutes

NOTE.—Our correspondent is the Secretary of the Syndicat Professionnel des Caoutchouc, Gutta-percha, etc., of France, founded in 1863, which embraces nearly all the rubber manufacturers and dealers in that country. It was more fully described in the issue of this journal for January 15, 1893. Mons. Chapel was formerly a rubber-manufacturer, and he is the author of the important work, "Le Caoutchouc et la Gutta-percha," published in Paris a year ago.—THE EDITOR.

a very important and successful industry in a large number of establishments.

The articles of merchandise more generally known under the generic name of *articles de Paris*, or Parisian fancies, such as balls, footballs, toys, tobacco-pouches, etc., are handled in France, it is safe to say, in a most remarkable manner. The French football has undergone several transformations. At first the article was made of a supple and sinewy sheet which could be inflated in volume one-third; thus an article was obtained which bounded to perfection. Unfortunately this football, excellent for the consumer, hardly suited the retailer, who complained of its tendency to collapse. In spite of the ease with which it could be reinflated, the retailers were disgusted with the annoyances to which this article subjected them; consequently, when the first German balloons were introduced into France, the retailers abandoned the French article, and forced their preference upon the consumers. The manufacturers therefore were obliged to modify their manufacture; copying the German processes at first, they then improved their product until it excelled that of their competitors across the Rhine.

Toys have thus far remained a French specialty in spite of the efforts made in Germany and England. In this class of merchandise, which includes widely differing articles, dolls and animals, we have sometimes found models of a really artistic character.

The manufacture of tobacco-pouches has notably declined in France of late years,—a result of the fashion which impels smokers to more and more abandon the pipe and smoke cigarettes, which they buy all made. What shapes have not been given to tobacco-pouches? Full scope has been given to the imagination of inventors in the creation of these models, some of which are very droll.

The manufacture of surgical articles has also been stimulated. Some very fortunate innovations have revealed in rubber a judicious means of relieving the miseries of humanity. While noting the progress achieved in this direction, especially as concerns articles in cut sheet, we must recognize nevertheless the superiority of certain English articles over similar French products, like "enemas," etc. At the same time the difference in appearance is not so great that we may not hope to see French products rise soon to a level with English articles.

Waterproof goods were made formerly in France only to a very limited extent. But in this direction also considerable progress has been effected, thanks to the favor which the ladies have shown for waterproof garments. The fashion, however, has not become as general as one might have expected, and it will be a long time before French production can rival the American in this particular. This is due largely to the customs of the people, who have not yet recognized a fashion which the Americans adopted without hesitation.

Thirty years ago there were several French houses devoted to the manufacture of footwear. Now there is but one, whose daily product amounts to 25,000 pairs.

The manufacture of elastic fabrics had its rise in France,

and has grown very much in the last few years; the volume of business is large, the exports alone, for 1892, amounting to 350,727 kilograms of elastic fabrics of every sort. The principal centers of manufacture are Paris, Rouen, St. Etienne, and St. Chamond.

Several houses devote themselves especially to the manufacture of Gutta-percha articles; others have undertaken on a large scale the manufacture of electric cables, and all the underground telegraph lines of France, as well as several submarine cables, have been constructed by these. These establishments also make cables for the transmission of power or light, and likewise undertake the installation of telephone lines.

Most of the rubber-factories are situated in Paris and its suburbs, but there are some also in the north of France,—at St. Quentin, Roubaix, Halluin,—in the center,—at Montargis, Clermont Ferrand,—and in the south,—at Marseilles, etc.

All the factories are in regular operation from one year's end to another. Their activity is sometimes stimulated by certain articles the demand for which depends upon atmospheric conditions. If the summer is dry, hose is in such demand that the manufacturers cannot satisfy the wants of consumers. On the other hand, when the season is rainy, there is a furious call for waterproof garments. Such examples might be multiplied. Wonderful industry that can accommodate itself to the most various climatic conditions and derive a profit from the contradictions of nature!

From this succinct survey it appears that the general tendency of the India-rubber and Gutta-percha industries in France is upward. The total number of establishments is almost the same as twenty years ago, but the mechanical power now employed is three times as great as the amount then used. The total annual product, according to the estimate of the Syndical Chamber, is 90,000,000 francs, or \$18,000,000.

The exports amount to about 12,000,000 francs, including principally elastic fabrics, toys, surgical articles, garments, footwear, etc. The imports almost equal the exports, including principally cut sheet, waterproof fabrics (from England), thread and footwear (from England and the United States). Germany and Switzerland also import, the former footwear and hard-rubber goods, the latter a certain quantity of elastic fabrics.

To sum up, the French manufacturers have increased their product in response to the ever-increasing demand; but it must be admitted that the results are by no means as brilliant as those of the period 1860-75, during which the maximum profit in proportion to the volume of business was reached. Will those good times ever return? Let us hope so for the sake of the rubber-manufacturers.

LATELY a new compound for gas-tubing has been placed upon the market, and as it is as cheap as rubber, it is selling quite rapidly. It comes in the usual length, has rubber tips at the ends to make the connection, and it is neatly gotten up. But it will crack readily by reason of its comparative non-elasticity, and its use perhaps will be only temporary.

A FRENCH RUBBER-MAN IN AMERICA.

An Interview with Mons. Ernest Hecht.

ERNEST HECHT, of the Paris firm of Hecht Frères et Cie., large importers of rubber into France, arrived in New York on the steamer *La Bourgogne* on August 26. M. Hecht's commission to visit the United States comes from M. Delcassé, the Under Secretary for the Colonies, once a confrère of Gambetta's, and a writer for the *République Française*. M. Hecht himself was a friend of Gambetta. In consequence of his knowledge of such affairs he has been deputed to visit the World's Columbian Exposition to study the products of foreign tropical countries and compare them with those of the French colonies. Incidentally, in his capacity as a large crude-rubber importer, he takes much interest in that commodity as an article of commerce in this country. M. Hecht said to an INDIA RUBBER WORLD reporter:

"While we have other ports of entry for rubber, Havre is the chief one in France, it being most convenient to Paris, in the vicinity of which most of our rubber-manufactories are located. While we have many factories in France, they are not so large, individually, as those in America. Our manufactures are chiefly in specialties,—clothing, surgical instruments, toys, and the like, and lately largely in pneumatic tires. France was the original home of the velocipede, and coming down from that more or less crude affair we have expended much effort in improving the 'wheel' until now we have reached a point at which bicycling has become a passion with us. Many of our streets have more bicycle-riders than there are occupants of other vehicles, and on the Bois de Boulogne, in some portions of the day, the coachman, or the pedestrian, has little comfort in the occupancy of the thoroughfare. Racing tournaments have been got up lately by the prominent manufacturers of tires,—Michelin, Corrilhon, Decour de Manche, and Le Febure. The amount of the stakes in one recently reached the rather extravagant sum, without the premium, of \$20,000, expressed in your currency.

"You are aware that we have sent over to America the Michelin tire, one of our best, which, I understand, is having a good share of success here. In this branch of the industry we have labored hard and earnestly, and if our efforts have commanded success perhaps it will be attributed to our really being deserving of it. I might

state that this tire industry is greatly fostered by our good roads, which from Cæsar's time we have carefully kept in a state of repair that has given us a world-wide reputation. This makes bicycling with us one of our chief pleasures.

"In other goods we aspire more to tasteful articles, such as atomizers, toys, and to the useful surgical instruments, and goods of that character. We have only one boot- and shoe-factory in France. We are increasing our hose-manufacture, but we are not in a boasting attitude about that. Perhaps we will some day compete with the world in everything; as it is, however, our consumption of rubber is now very large. Our goods are well liked and sell readily in England, Germany, Russia, Turkey, Austria, Italy, Spain, and Portugal. Our exports to the colonies are increasing all the time, and are now much larger than they were a few years ago.

"We have a 'rubber-substitute' factory in the north of France, but you have a wrong impression when you speak of our nourishing that industry. We have a liking for good articles, and the 'substitute' is somewhat out of place in them.

"As to the use of African rubber in our manufactures, I have noticed that it is increasing; in fact it is many times larger than it was some years ago. It has not, however, made the imports from Pará any smaller. Several of the important rubber-houses in Manáos are under the control of Frenchmen. Still the ratio of increase in the latter sorts is not so great as in Africans. We get our Africans principally from the West Coast, Gambia, Sierra Leone, Kongo, and Madagascar. It may be mentioned that the English, Scotch, Continental, and American buyers enter the French market to supply their wants for crude rubber from Africa.

"Generally speaking, rubber-manufactories are not, like yours, owned by corporations, but by private individuals. The consumption of rubber goods in France is constantly increasing, keeping step with our constant enlargement of imports of crude rubber. As to my impressions of the industry in America, I have only been here two days, and cannot speak in detail. But no one could help being pleased with the hospitality that has been extended me. Your fine buildings, the bustle and activity in the streets, and the signs everywhere of enterprise and solidity are very impressive to a stranger."

SOME RUBBER-FACTORIES IN GERMANY.

THE statements which follow will serve in some measure to show the scale on which rubber-manufactories which rank as important in Germany are conducted. Respecting the financial affairs of these concerns, the first object of every one of them seems to be the accumulation of a reserve fund amounting to at least 10 per cent. of the amount of the capital stock. The yearly

addition to this fund is always written off before the dividend is declared. As a rule the balance sheets do not reveal a large indebtedness. The shares of even the smaller companies are registered "on 'Change'" and quotations might be given of the prices of each for any given date. It is interesting to note that nearly all these companies came into existence about the same time.

United Rubber-Goods Factories of Harburg-Vienna.

[Vereinigte Gummiwaaren-Fabriken Harburg-Wien, vorm. Menier—I. N. Reithofer.]

Director: Carl Marct. President Board of Managers: C. Lücke (Hanover). Location of factories: Harburg-on-the Elbe, near Hamburg, and Wimpassing, in lower Austria. Office: Vienna.

Both factories were established in the "fifties." A career of keen competition was ended by the agreement of the two proprietors—Menier, in Paris, and Reithofer, in Vienna—to consolidate the factories under the management of a stock company, and jointly to utilize the peculiar advantages offered by their situation. This was done June 1, 1872. The works at Harburg are operated by steam, having engines of 400 h.-p. The products include rubber shoes, coats, balls and balloons, surgical and technical articles, and insulators. Goods are exported to Scandinavia, Denmark, Holland, Belgium, France, England, and America. The Wimpassing factory has water-power, equal to about 400 h.-p., available nearly all the year, in addition to reserve steam-engines of 300 h.-p. The same classes of goods are made as at Harburg, and also hard-rubber articles of every description, combs and jewelry, rubber threads, and woven goods. The exports are mainly to points along the Danube, to Italy, and to the Orient. There are branch houses in Hamburg and London, and warerooms and representatives in all the principal cities of Europe.

The capital is 4,500,000 marks (\$1,125,000) in shares of 300 marks. At a general meeting one vote may be cast for every 25 shares, but the maximum representation allowed is 50 votes. The business year begins on July 1. The yearly earnings from 1872-73 to 1890-91 ranged from 10 to 29% cent., averaging 15.79%. The latter figure represents earnings of 710,550 marks. The reserve fund created by setting aside 5% of the earnings each year until the reserve should equal 25% of the capital is now full (1,125,000 marks) and there is an additional reserve fund of 375,250 marks. The market price of shares has ranged between 154½% (1883) and 270% (1889).

BUSINESS YEAR 1890-91.

Gain.—Merchandise, 2,065,973 marks; interest and rent, 3860; receipts on old bills, 13,998;—total 2,083,833.=Deduct: repairs, 199,549; business expenses, 566,872; office expenses, 10,124; premiums and discounts, 22,894; insurance, 37,685; marine insurance, 8090; sinking fund, 110,851;—net gain, 1,127,762 marks.=Division: dividends, 900,000; royalties, 180,552; gratuity, 17,209; aid fund, 30,000 marks.

Assets.—Real estate, 742,035 marks; water-power, 334,090; buildings, 1,226,107; machinery, 764,634; tools and furniture, 394,641; raw material, 1,369,698; manufactured goods, 763,057; cash, 59,461; bills receivable, 364,089; chattels, 10,629; accounts, 2,014,916;—total, 8,030,357 marks.

United Berlin-Frankfort Rubber-Goods Factories of Berlin and Gelnhausen, near Frankfort o/M.

[Vereinigte Berlin-Frankfurter Gummiwaaren-Fabriken von Berlin und Gelnhausen.]

Directors: A. H. Wendt, C. E. Bergeon (Gelnhausen), M. Becker (Berlin). Board of Management: I. Isaac, president (Dortmund); E. Buchholz, vice-president (Offenbach).

The Frankfurter Gummiwaaren-Fabrik, organized at Frankfort many years ago, was reorganized in 1870, capitalized on a larger scale, and removed to Gelnhausen, a small town thirty miles east, where extensive buildings were erected. The Berliner Gummiwaaren-Fabrik Actien-Gesellschaft in Berlin was organized December 18, 1883, by I. Isaac and H. L. Brüggman, of Dortmund, and L. Simons, of Neuss, with a capital of 670,000 marks. At the general meeting of the latter company of July 15, 1886, it was voted to combine with the Gelnhausen factory, which had come into the possession of Wendt, Buchholz & Co., at a sheriff's sale. Wendt became a director in the consolidated company and Buchholz a member of the board of management. The new concern was capitalized at 1,000,000 marks, which was increased April 27, 1889, to 1,200,000 (\$300,000). The products include railway supplies, ship's materials, soles for tennis and sporting shoes, belting, hose, stationer's sundries, laboratory apparatus, waterproof garments, and miner's clothing. Ordinary overshoes are not made by this company. There were no dividends in the years 1884-86. In the years 1887-90 they were respectively 5, 7, 8, and 8%. Shares were quoted in the latter year at 109.90%.

PROFIT ACCOUNT, 1890.

| | M. pf. | M. pf. |
|------------------------------------|------------|--------------|
| Brought forward from 1889..... | 1,489 41 | |
| Stock..... | 418,171.47 | |
| Rentals..... | 3,578.76 | = 423,239 64 |
| Deduct— | | |
| Dubious accounts..... | 12,136.03 | |
| Interest on mortgage and debt..... | 25,016.90 | |
| General expenses..... | 193,601.23 | |
| Repairs..... | 7,624 16 | |
| Sinking Fund account..... | 55,034.40 | = 293,412.72 |
| Net gain..... | | 129,826.90 |

Division.—Dividend (5%) 60,000; super-dividend (3%) 36,000; extra reserve fund, 10,000; same, additional, 10,000; royalties, 9 625.69; carried forward, 4,201.23.

United Hemp-Hose and Rubber-Goods Factories.

[Vereinigte Hanfschlauch- und Gummiwaaren-Fabriken.]

Directors: E. Lange (Gotha), Otto Poehler (Arnstadt) H. W. Warmuth, and C. L. Wolf (Dresden). President Board of Managers: Lawyer Jacobs II (Gotha); vice-president: Wilhelm Bierschenk (Gotha). Factories in Gotha, with branches in Arnstadt and Dresden.

The companies which were consolidated under this title on October 18, 1888, together with their respective interests in the consolidated capitalization of 1,200,000 marks (\$300,000), were as follows:

| | |
|--|------------|
| Gebr. Burbach & Co. (Gotha)..... | 400,000 M. |
| Lange & Poehler (Arnstadt)..... | 360,000 M. |
| Heinrich Wilhelm Warmuth (Dresden-Lobtau)..... | 360,000 M. |
| G. F. Simon's Successors (Dresden-Lobtau)..... | 80,000 M. |

The new company began business with a mortgage loan of 500,000 marks. Besides technical rubber goods the principal product is hemp-hose. Two very valuable patents are owned by the company. A brisk export trade is carried on with Austria-Hungary and Roumania. The annual earnings up to 1891 ranged between 10 and 12½%

the average being 11%. The balance-sheet for 1891 follows, the figures expressing marks :

| ASSETS. | | LIABILITIES. | |
|----------------------------|-----------|-------------------------|-----------|
| Real estate..... | 131,393 | Capital Stock..... | 1,200,000 |
| Buildings..... | 434,647 | Mortgage loan..... | 492,500 |
| Machinery..... | 352,960 | Interest on same..... | 2,295 |
| Tools and implements..... | 30,851 | Fixed reserve fund..... | 34,293 |
| Utensils..... | 9,179 | Royalty..... | 11,319 |
| Patents..... | 45,500 | Dividends..... | 120,000 |
| Cash..... | 11,628 | Old dividends..... | 200 |
| Bills receivable..... | 31,641 | Brought forward..... | 4,140 |
| Chattels..... | 3,142 | | |
| Accounts..... | 509,047 | | |
| Raw material..... | 142,578 | | |
| Merchandise..... | 154,347 | | |
| Insurance..... | 834 | | |
| Premiums and discount..... | 7,000 | | |
| Total..... | 1,864,747 | Total..... | 1,864,747 |

Rubber-Goods Factory of Voigt & Winde, Stock Company.

[Gummiwaaren-Fabrik, Voigt & Winde, Actien-Gesellschaft.]

Board of Directors : Julius Sisum, R. Hoffmann. President Board of Management : A. G. Wittekind. Location : Kottbuserstrasse 5, Berlin, with branch factory at Britzerstrasse.

Established June 11, 1873, with a capital of 1,200,000 marks, in shares of 300 marks. A mortgage of 300,000 marks was paid from the capital stock in 1878. At the general meeting of March 16, 1891, the capital was fixed at 1,000,000 marks (\$250,000) in 1000-mark shares. The reserve fund reached the require limit of 10% of the stock capital upon the division of the net gain of 1882. The earnings from 1873 to 1891 ranged from 4 to 14%, the average being 7 2/3%.

BUSINESS FOR 1891.

Gain.—Brought forward, 2091 marks; merchandise, 151,120; interest, 9697; chattels, 2603;—total, 165,513.—Deduct : from value of buildings, 4394; machinery and utensils, 10,293; vehicles, 3688; business expenses, 31,554; taxes, 4478; sick fund and accident insurance, 4733; repairs to buildings and machinery, 10,765; account current, loss, 2971;—remainder, 92,677. Division : dividend (8%) 80,000; royalties, 12,175; carried forward, 501 marks.

North German Rubber and Gutta-percha Goods Factory.

[Norddeutsche Gummi- und Guttapercha-waaren-Fabrik, vorm. Fonrobert & Reimann, Actien-Gesellschaft.]

Board of Directors : R. Schatz (proxy, Louis Schmidt), Gustav Weise. President Board of Managers : Jacques Kussel. Location : Tempelhoferufer 17, Berlin.

Established October 14, 1871. Capital originally 1,440,000 marks, which it was voted, February 25, 1888, to reduce to 975,000 marks (\$243,850) by redeeming a sufficient number of shares. Some fortunate purchases of real estate adjoining the factory, in the early history of the firm, were sold to the municipality at a handsome profit, contributing to the financial condition of the company. The reserve fund long since reached the fixed limit. The average annual earnings have been 3.76%, including the years 1880 and 1887, when nothing was earned. The balance-sheet for 1891 follows, the figures expressing marks :

| ASSETS. | | LIABILITIES. | |
|--------------------------|-----------|----------------------|-----------|
| Real estate..... | 955,411 | Capital..... | 975,000 |
| Machinery and tools..... | 52,810 | Mortgages..... | 167,000 |
| Merchandise..... | 112,772 | Reserve funds..... | 107,100 |
| Cash..... | 56,548 | Guarantee fund..... | 1,398 |
| Bills receivable..... | 9,583 | Workmen's fund..... | 279 |
| Accounts..... | 99,370 | Creditors..... | 1,100 |
| | | Royalties..... | 3,892 |
| | | Dividends..... | 30,151 |
| | | Carried forward..... | 564 |
| Total..... | 1,286,494 | Total..... | 1,286,494 |

German Rubber and Gutta-Percha Goods Factory Stock Company (formerly Volpi & Schluter).

[Deutsche Gummi- und Gutta Percha-Waaren-Fabrik, Actien-Gesellschaft, vorm. Volpi & Schluter.]

Director : Emil Herold. President Board of Managers : —Lemelson. Location of factory : Berlin.

Established November 28, 1871. The products are mainly supplies for railroads. Capital, 1,400,000 marks (\$350,000) in shares of 300 marks. Stockholders have one vote for five shares, the maximum vote allowed being 50. The reserve fund reached in 1882 the extent originally designed, of 10% of the amount of the capital stock. The earnings up to the end of 1891 ranged from 4 to 9%, averaging 5.9%. The accounts for 1891 show :

| ASSETS. | | LIABILITIES. | |
|-------------------------|-----------|--------------------------|-----------|
| | Mks. | | Mks. |
| Business account..... | 1,105,966 | Capital..... | 1,400,000 |
| Machinery..... | 58,599 | Security account..... | 22,500 |
| Tools..... | 13,242 | Reserve fund..... | 144,000 |
| Material..... | 89,239 | Independent reserve..... | 3,634 |
| Bills, merchandise..... | 1,037 | Royalties..... | 10,317 |
| Sales account..... | 132,004 | Dividends..... | 72,252 |
| Bills receivable..... | 4,181 | Carried forward..... | 738 |
| Cash..... | 6,959 | | |
| Chattels..... | 259,694 | | |
| Security Bonds account | 22,500 | | |
| Total..... | 1,693,421 | Total..... | 1,653,421 |

C. Schwanitz & Co., Stock Company for the Manufacture of Technical Rubber Goods.

[Actien-Gesellschaft für Fabrication Technischer Gummiwaaren, C. Schwanitz & Co.]

Director : Ernst Krödel. President Board of Managers : Herman Rinkel. Vice-President of the Board : Counsellor Müller (Charlottenburg). Location : Müllerstrasse 171 A, Berlin.

Established 1874. Capital, 830,000 marks (\$207,500) in 360 preferred and 1300 general shares. The preferred stock has earned 5% regularly, and the general stock from 6% (1875) to 18% (1891), the average being 11.9%.

INDIA-RUBBER IN SALVADOR.

IN a recent report to the Department of State, Mr. G. J. Dawson, the acting consul at San Salvador, writes : " The tree that produces this gum grows wild in the woods that cover the low, marshy plains of the departments of La Paz, Usulután, San Miguel, and La Unión. No India-rubber trees have been planted in Salvador, though the authorities have made repeated efforts to induce farmers to plant them. The methods observed in extracting the gum are similar to those employed in the rest of Central America."

RUBBER IN ANGLO-BRAZILIAN TRADE.

THE government at Rio de Janeiro has published the report of the Brazilian consul-general at Liverpool on the trade between the ports of the United Kingdom and those of Brazil for the years 1882-91. The value of Brazilian products received at British ports has declined considerably within this period, while the shipments to Brazil have increased in about the same proportions. Of the Brazilian products received at the ports of the United Kingdom the most important is India-rubber, amounting in 1891 to 12,259,072 pounds, valued at £1,765,450. This is three times the value of the shipments of Brazilian coffee to England.

THE GUTTA-PERCHA INDUSTRY IN SIAM.

By J. B. Breuer (Bangkok).

THE era of progress which has begun in Siam, under the favoring disposition of the sovereign, is characterized by the extension of railways and other means of developing large districts of country hitherto practically closed to trade, industry, and agriculture. In the list of exports of that country are many products of soil and forest which, up to date, have been furnished only on a small scale. But they exist, the soil and climate are favorable to their growth, and with improved facilities for transportation it is expected that they will be prepared for market in greatly increased quantities. Such, at least, is the point of view of the Siamese government.

Among products of which great things are expected Gutta-percha holds a prominent place. The question of the sources of supply of this valuable commodity is constantly becoming more urgent on account of the growing scarcity of the trees. In Java they have been almost exterminated, while in Sumatra, Borneo, and the Malay peninsula the stock of trees has been diminished to a ruinous extent. This condition of affairs has induced several leading houses, at the head of whom are Messrs. Grassi Brothers & Co. (Bangkok) and Messrs. Brandt & Co. (Singapore), to form a company for the purpose of purchasing and working the new patented invention of M. Dieudonné Rigole, of France, for extracting Gutta-percha from the leaves and twigs of the *Isonandra dichopsis* and other species yielding this gum. This process, in the opinion of the inventor, will open to the commercial world the chance of obtaining, in the course of a few years, an unlimited supply of the very best Gutta-percha, since the trees may be utilized continuously during the whole period of their natural existence.

The location chosen for the development of this new industry is the Pulo Obin estate, on the island of Pulo Obin, belonging to the Malay peninsula and situated eight miles from Singapore. It is proposed to establish here plantations of *Isonandra* and a factory for extracting the gum. The Siamese government has manifested its favor by offering to the syndicate leases of land in the provinces of Kelantan, Tringanu, and Kamaman, and also the protection of Mr. Rigole's patent within Siamese territory.

It may be of interest here to give a summary of the prospectus of The Gutta-Percha Manufacturing Co., Limited. The agents for the present are the important houses already mentioned. The bankers named are The Hong Kong and Shanghai Banking Corporation, and the company's counsel is E. B. Mitchell, Esq. The amount of capital named is \$600,000, in shares of \$25 each. It is planned to begin with \$275,000 of working capital, to be expended according to this

ESTIMATE.

| | |
|--|-----------|
| Cost of erecting factory, buildings, and machinery. | \$ 80,000 |
| Half purchase-money of Pulo Obin estate. | 20,000 |
| Cash to M. Rigole. | 30,000 |

| | |
|--|----------|
| Establishing company. | \$ 5,000 |
| Purchase, planting, and care of 66,000 trees, first year. | 10,000 |
| Contingencies. | 20,000 |
| Funds in hand for beginning work. | 110,000 |

Annual Expenditure.

| | |
|---|----------|
| Salary of manager. | \$ 7,200 |
| Salaries of chemical assistants. | 17,800 |
| Purchase of leaves and twigs. | 360,000 |
| Cost of manufacturing 6000 piculs (a) of Gutta-percha. | 630,000 |
| Directors', secretaries', auditor's, and treasurer's fees. | 15,000 |
| Office expenses, printing, and postage. | 8,000 |
| Agent's commissions on sales. | 52,500 |
| Depreciation on plant of 10%. | 8,000 |
| Planting and caring for Gutta-percha trees. | 10,000 |
| Contingencies. | 20,000 |

Total. \$1,118,500

| | |
|---|-------------|
| Estimated proceeds of sales of 6000 piculs of Gutta-percha @ \$350. | \$2,100,000 |
| Deduct yearly expenses. | 1,118,500 |

Leaving for profits. \$ 981,500

[a. One picul is about 140 pounds.]

It will be noticed that this estimate promises a profit of more than 150 per cent. on the whole capital of \$600,000. Naturally many arguments have been urged against the prospects so brilliantly set forth. For instance, it is shown in an analysis made by Mr. Friedrichs, a chemist of Bangkok, that the production of 1 picul of chemically-pure Gutta-percha would require 22.6 piculs of dried leaves or 113 piculs of fresh ones, while the estimate used in the prospectus provides for only 20 and 100 piculs, respectively, for 1 picul of product. It is also objected that the estimated price of \$350 per picul (about \$2.50 per pound) is too high. Since the very best native Gutta-percha costs not more than \$180 per picul (\$1.28 per pound). But this high estimate is defended by M. Rigole, with the claim that his product will be chemically pure, while the best of the native product contains only 30 or 31 per cent. of Gutta-percha. Another comparison of quality is also urged by him. Taking one grain of the native product and one of the manufactured article, and drawing each out to a length of one foot, the former will break at 5½ pounds, while the latter stands a strain of 132 pounds. Again, specimens of the Rigole gutta, placed in concentrated liquid ammonia, remained for months without any apparent effect. Its insulating qualities are claimed to be superior to those of the ordinary article, and the melting-point more satisfactory, all of which, according to M. Rigole, has induced important European firms to make an offer of \$350 per picul for large quantities of his product.

The objection has been made to the proposed enterprise that it would be impossible to buy the leaves required for manufacturing Gutta-percha, laid down at the works, for \$2 or \$3 per picul, as indicated in the prospectus. Gutta-percha trees, it is argued, have been almost wholly exterminated in the jungles near the seashore, and travel is full of difficulties in the interior. Several days have been known to be necessary for a voyage of only a few miles,

and it has seemed to some that a particular kind of craft would be needed to convey the bulky bundles of leaves down the rivers. In reply to this M. Rigole claims that, while large Gutta-percha trees have disappeared from the coast regions, there are small ones in plenty. The latter, though not yielding gum to an appreciable extent by the ordinary methods, will yield a good supply of leaves, if cropped periodically. Moreover, whenever in Singapore an article of native production has been wanted at a remunerative price, it has been forthcoming in large quantities. Thus copra,* which was hardly obtainable in 1879, was exported last year to the extent of 850,000 piculs. So rattans, now sold in Singapore at \$2.25 per picul, are forthcoming, hundreds and hundreds of miles from Borneo. It will be the same with Gutta-percha, M. Rigole believes. Besides the leaves of the latter can be chopped up fine, and in such a state a picul of leaves would occupy scarcely more room than the same weight of rice.

COTTONSEED-OIL SUBSTITUTE.

TO THE EDITOR OF THE INDIA-RUBBER WORLD: In reply to a letter from you respecting certain newspaper articles that have been printed in regard to my cottonseed oil rubber-substitute, I wish to say that since furnishing the information published in your journal of October 15, 1892, I have not given any points on the subject to any one else for publication. Everything else that has appeared in print in relation to it wants the foundation of truth.

My product is being tested by some of the best houses in the country, and time alone will tell the result. But I have never claimed—and do not claim now—that it will take the place of rubber. I have had some goods made by one of the best rubber concerns in the United States, and when I find out how they wear, and how they are affected by climatic changes, I will with pleasure inform you. Until then, whatever may be published in regard to my product will be without my sanction and untrustworthy.

JOHN G. CARTER.

Savannah, Ga., August 29, 1893.

TO THE EDITOR OF THE INDIA RUBBER WORLD: I notice that a writer in the *Manufacturers' Record* (Baltimore) continues to assert that "chemically pure rubber" is being made from cottonseed-oil. What is more, he asserts that it is being used. Here is an extract from one of his recent articles:

"Some five or six years ago an English inventor sold to an American rubber-manufacturer for a considerable amount a secret process for manufacturing cottonseed-oil into rubber. Since then this secret has become the property of the rubber trust. This process has been used ever since, and it is a matter of fact that large quantities of cottonseed-oil are now being used by at least fifteen or sixteen rubber-factories in the United States to produce a substitute for rubber. This is in the United States alone. I do not know to what extent this process is being used in England and on the continent, but as it originated in England, it is probably used to some extent there also. By

*The dried kernel of the cocoanut.

this process the converted cottonseed-oil costs about seven cents per pound. The admixture of the substitute has been limited to about 15 per cent., as it is not deemed advisable to exceed this amount without deteriorating the quality of the rubber product."

As rubber-substitute is never used in the manufacture of boots and shoes, it is all bosh about the "rubber trust" having anything to do with the so-called cottonseed rubber. Cottonseed-oil has been used in making rubber-substitute to a very small extent, but not enough to be worth talking about in comparison with the use of linseed-oil.

O. R. C.

Boston, Mass., August 22, 1893.

* * *

THE INDIA RUBBER WORLD is informed by Mr. Carter of the incorporation, at Savannah, of the Elastic Product Co., for the manufacture of his rubber-substitute in large quantities in case its value should be demonstrated by tests of the goods which have been manufactured in part from this substance. As will be seen by the letter printed above, Mr. Carter disavows all responsibility for the nonsense which has been printed concerning his experiments with cottonseed-oil.

"MECHANICALS" FOR HIGH TEMPERATURES.

TO THE EDITOR OF THE INDIA RUBBER WORLD: Noting an item in your July issue to the effect that rubber goods were being introduced to stand a temperature of 350° (presumably Fahrenheit), I would say that I used and imported such goods as far back as 1873, the trademark or special designation on some of them being "D V," which, I believe, stood for "double-vulcanized." I needed these goods for standing high steam-pressures, and in one instance, superheated low-pressure steam. I also subjected them continuously in service to the action of hot water. For this class of work I used both English and Scotch goods; their superior quality quite compensating for their high price, due to freight, duty, brokerage, etc., and for the abominable delay in getting them after they were ordered.

I also used foreign rubber goods where they were subjected to the action of lard-oil (in one instance, melted lard); and one of my clients was unwise enough to entrust some of the same stuff to the tender mercies of hydrocarbon oils,—with disastrous results to the rubber, to be sure, but with much more satisfaction than had attended similar imprudence with regard to American goods.

This is not written to decry American rubber goods, nor to sound the praises of British "mechanicals," but just to call the attention of consumers who wish or need rubber to stand 350° F. (the temperature of saturated steam of about 120 pounds pressure per square inch, by the gage), to the fact that all they need do is to express their demands sufficiently plainly, and back them with large enough orders, and our dealers can and will supply them.

It would be well, also, to call the attention of consumers of rubber goods to the fact that they should not subject

other than specially-ordered or specially-made "mechanicals" to abnormal temperatures, nor to the action of oils, especially of hot ones. Dealers could, if they would, do much towards educating consumers into two ideas: (1) that ordinary rubber is not calculated to resist with advantage extremes of temperature or the action of oils; (2) that if they want rubber for unusually severe service, they can get it by stating the service and ordering enough to make it pay the manufacturer to get up special mixes and to vulcanize articles under extra heat or during extra length of time.

ROBERT GRIMSHAW.

New York, July 21, 1893.

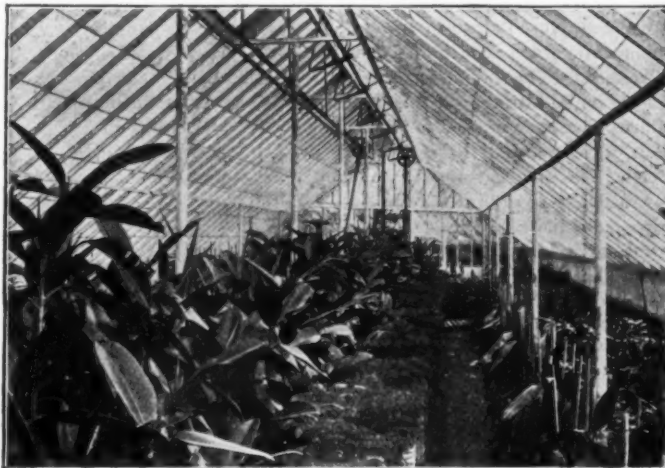
ELASTICITY OF COTTON WEBBING.

THE testimony in a recent hearing before the United States board of general appraisers relative to the importation of some cotton elastic webbing was very interesting. The witnesses were manufacturers from different sections of the United States, some of them having been in the business in Europe before they came to the United States.

The testimony of all was to the effect that cotton webbing, the warp and the woof threads of which always run at right-angles to each other, cannot be made elastic without the presence of India-rubber. Knit goods, it was said, could be made more or less elastic without the aid of India-rubber, but it was stated that knit goods do not have warp and weft threads running at right-angles with each other in the manner in which they are arranged in woven webbing. Manufacturers had tried again and again to make cotton webbing elastic without the presence of India-rubber, but in each and every case had found it impossible. All of the importers of cotton elastic webbing of every description were called in, and they testified unanimously that they had never heard or seen of cotton webbing. The peculiarity of the case was that it had been shuttle-cocked before. Many months ago the general appraisers had decided as they do now, but Judge Lacombe in an opinion reversed that decision. He took the ground that India-rubber was not necessary, that he had no evidence before him of it being so, and said that there could not very well be such evidence, as it was well known that the elasticity was a matter of weave as well as of material, and that cotton webbing could be made without the presence of India-rubber. The general appraisers and the trade were somewhat taken aback at this, but upon investigation ascertained that pains had not been taken to properly inform the court, so the subject has again been taken up on a new importation and pains given to make everything clear, the protesting firm testifying against their own case. This decision again puts cotton webbing elastic under the India-rubber paragraph of the tariff law, which levies a duty of 40 per cent. *ad valorem*, where it will remain until some other importer is willing to make up a fresh case that he will carry up to the higher courts.

RUBBER-TREES AND FLORISTS.

THE rubber-tree as a home or lawn ornament has achieved a wide popularity. This is so well appreciated by florists that numbers of them devote whole houses to their culture and sell yearly many thousands of them. The tree that is to be found in the country over and is known as the rubber-tree is a species of *Ficus* but is not the *Ficus elastica*. A prominent florist claims that there are many millions of these trees now in the United States and that the demand is rapidly increasing. A curious part of the culture of these trees is the process of starting new shoots. To do this a tree that is perhaps thirty inches high is laid on its side in a bed of soft moss. Beneath each leaf a place is scraped so that the wound shall bleed a little. The sap that exudes from these abrasions soon hardens into a rough warty mass, which, coming in contact with the wet moss throws out roots, then a perpendicular shoot, and in the course of a few weeks forms an independent plant. In this way one tree produces fifteen or twenty. Of course the temperature and moisture must be carefully equalized, and the new plants



removed and potted just at the right time. The illustration shows the "rubber house" attached to the greenhouse of William E. Bowditch, Grove Hall, Boston.

THE NAVIGATION OF THE AMAZON.

AT the twenty-first (annual) ordinary general meeting of the shareholders of the Amazon Steam Navigation Co., limited, held recently in London, it was stated that the trading results for the past year had been most prosperous, and that energetic measures had been devised for the development of increasing commerce. The first step will be to order six new steamers of the most advanced type for the special requirements of the navigation of the great rivers of the Amazon valley. In the nineteenth annual report—the latest on file in THE INDIA RUBBER WORLD office—the number of steamers owned by this company was stated at thirty-one, exclusive of tugs.

A STORY having started the newspaper rounds concerning a rubber-factory in Japan, the editor of THE INDIA RUBBER WORLD addressed an inquiry on the subject to the U. S. consul-general at Kanagawa (Yokohama), who replies that no such factory exists.

NEW PUBLICATIONS.

COLOMBIA. 1893. BY CLIMACO CALDERON, CONSUL-GENERAL OF Colombia, New York, and Edward E. Britton, Special Commissioner of the Republic of Colombia to the World's Columbian Exposition. New York: 1893. [8vo. 122 p.]

THIS book represents the spirit of progress in Colombia which is finding expression in many avenues with the object of making the resources of that country better known. On account of the financial difficulties in which the southern countries of South America are involved, there is now reason that capitalists may turn their attention more fully to opportunities for investment in the northern States of that country. Fortunately for Colombia, in this connection, the existing political conditions give more promise of stability, perhaps, than is true of any other country in South America. The book has been principally prepared for distribution at the Chicago Exposition, but it will be of permanent utility as a work of reference on the country. In general appearance the book is very attractive. Its covers are tinted similarly to the Colombian flag and embellished by the national escutcheon. It is profusely illustrated with portraits of the president and vice-president, and with plates reproduced from photographs showing landscapes among the Andes, scenes in Bogotá and other cities, types of natives, etc. There is also a good map of the country and a chapter on its history. It is surprising to see what handsome edifices have been erected in these places which are still so difficult of access, and so far removed from ordinary routes of travel. The work is stated to be based upon one of the bulletins issued by the Bureau of the American Republics, and comprises a complete description of the country and its cities and towns, its political institutions, natural resources, and means of communication. Reference is made, in enumerating the resources of Colombia, to India-rubber, the exports of which are constantly on the increase.

ELECTRICITY UP TO DATE, FOR LIGHT, POWER, AND TRACTION. By John B. Verity, M. Inst. C. E. New York and London: Frederick Warne & Co. 1893. [12mo. 163 p. 75 cents.]

THIS is a handbook on applied electricity of practical value to the electrician, while well-fitted, by the absence of technicalities, for the general reader. Such technical terms as cannot be omitted are fully explained in a "glossary" at the end of the book. In the chapter on "The Wiring of a House," a list of suitable insulating materials is given, including Gutta-percha and India-rubber. It is added that Gutta-percha, though so largely used for telegraphic and submarine work, is not serviceable for electric-light work, on account of its yielding so readily to the influence of heat. "Electric-light wires are now principally insulated with India-rubber, or a fibrous material such as jute steeped in a resinous or bituminous compound. India-rubber is usually vulcanized, *i. e.*, treated with sulphur, to make it harder and more durable, and good vulcanized India-rubber insulation is generally considered the best. This, however, like most other things nowadays, is frequently adulterated, and cheap rubber insulation is seldom good." In a foot-note the writer expresses the opinion that for high-pressure currents a homogeneous insulation like India-rubber is preferable to any fibrous insulation at present made.

IN AMAZON LAND; ADAPTATIONS FROM BRAZILIAN WRITERS, with Original Selections. By Martha F. Sesselberg. New York and London: G. P. Putnam's Sons. 1893. [8vo. 94 p.]

THIS is a collection of Brazilian stories and sketches, many of them poetical and beautiful, and all of them deserving of attention from those interested in the study of folk-lore. "A Tale

of the Great River" is the longest and most ambitious of these sketches, telling in graphic and artistic touches the old story of woman's love and man's perfidy, which varies not in the rubber country from its details in all other lands. The book is one which will aid the reader in understanding the social life of the Amazon valley, both within and outside the villages. The volume is handsomely printed and contains several illustrations. The name on the title page is that of a Brazilian commissioner to the World's Columbian Exposition, who is also one of the lady jurors on awards. She has been a resident of Pará for several years.

THE CITY OF MANÁOS AND THE COUNTRY OF THE RUBBER TREE. A Souvenir of the Columbian Exposition, Chicago, 1893.

THIS is a handsomely-bound album of photogravures representing the principal buildings of the great rubber capital of Manáos, in the State of Amazonas, together with views along the Purús river, showing settlements of wealthy traders, types of rubber-gatherers and fishermen, types of Indians, and various natural products. The views of Manáos indicate that many buildings of a high order exist there,—a theater, a church, lyceum, the bank, and several other buildings of importance being shown in addition to the governor's palace and the State treasury. The distribution of this book at the World's Fair doubtless will do much to remove the impression in many quarters that Manáos is a collection of Indian huts in a fever-breeding settlement, too far from civilization to merit serious attention.

SPEECH OF RATCLIFFE HICKS, DELIVERED IN THE HOUSE OF Representatives, Hartford, Conn., June 22, 1893, in favor of the Bill for a Constitutional Convention. [8vo. 12 p.]

THIS pamphlet is mentioned here, not because of any relation of its subject to the rubber interest, but because the author is the president of a prominent concern in the trade—the Canfield Rubber Co. Two other speeches by Mr. Hicks during the session have been mentioned already in this journal.

MORE RUBBER BUILDINGS AT MALDEN.

IT would appear that the much-talked-about "general business depression" was not to any very great extent affecting the Boston Rubber Shoe Co. Right in the very midst of the depression this prosperous concern is making a series of improvements and enlargements in its plant at Malden, Mass. Last month representatives of this company appeared before the Malden board of aldermen and asked for permission to erect two new buildings, which was no sooner asked than granted. The Hon. E. S. Converse stated to a representative of THE INDIA RUBBER WORLD that increased production as well as general prosperity all along the line had made more commodious store-room an absolute necessity and to this end it had been arranged to erect a mammoth store-house adjoining the main factory. This was one of the buildings for which permission to build was asked. It will be a three-story structure, of plain brick, and will measure 234 by 100 feet. It will be used principally for storage purposes although it is probable that most of the packing of goods will also be done here. The building will be a model one in every respect, fitted up not especially as a thing of beauty, but as a convenient store-house with freight elevators, etc. The estimated cost is \$50,000. So cramped has the management become of late for room in the main building that it has been decided to erect in the southwest corner of the lot a two-story structure which may be used as a cement- and varnish-house. This will also be of brick and

will be a welcome successor to two unsightly buildings—or, as they might be called, L's to the main building—which are now being torn down. This building will cost from \$5000 to \$10,000. On the first floor will be separate apartments for varnish, cement and naphtha, while the second will be used as a lumber-room. The building will be in the form of a right-angle, each of the two branches or sides measuring about 30 by 20 feet. The coming fall, it is rumored, will witness more building on the part of this company, but Treasurer Converse did not care to either deny or affirm said rumors. "We can tell better next fall," he remarked.

RUBBER TRADE METHODS CHANGE SLOWLY.

"THERE has been very little change in the routine of importing rubber within the past thirty years," said a Brazilian long connected with one of the largest houses in New York, in a conversation with a representative of THE INDIA RUBBER WORLD. "Houses have come and gone, Vianna has shot through the rubber world like a meteor twice or three times, but the case of rubber and the inevitable draft come along as they did of yore. One minor variation hardly worth mentioning is that we then sent the shooks to Pará to be made into cases, while now we simply give them the lumber in the rough. But the sizes of cases have not been changed.

"The crude-rubber business has grown, however, beyond all predictions made at that time. In 1860 all the rubber was brought here in schooners of about 1000 tons burden. These vessels came into New York twice per month, and they brought all that was necessary for our needs. Now we have steamers discharging in New York sometimes 5000 tons, and coming as often as twice or thrice in a week, illustrating the great strides made in the consumption here. Down to 1881 there was no attempt on the part of the manufacturer to buy direct from Pará, but after that time purchases were consummated to a gradually increasing extent by the mill-owner direct.

"In schooner times the importer knew very little about Manáos, but later on our steamers passed by Pará and proceeded to the upper ports. The business year after year, so far as methods and routine are concerned, is a very steady one. Buy the rubber and send the money to Brazil via London to pay for it is the Alpha and Omega of the business."

HASTY GLIMPSES OF RUBBER-MEN.

MR. FREDERICK M. SHEPARD, president of the Good-year Rubber Co., spends about an hour a day in his office, in New York city, but it is not to be inferred from this that he is, by any means, an idle personage. Over in New Jersey, where he lives, he takes care of a large waterworks, and in New York he is connected with two or three insurance companies. He is a director of the National India Rubber Co., in which he has a large interest, on account of which he holds a place also in the directorate of the United States Rubber Co. Mr. Shepard is a man of ample means, and the wolf doesn't even know the direction to travel to find his door, but he has to work, and work constantly, his varied interests making it necessary for him to go over more ground every day than most men would care to undertake to cover.

Mr. J. D. Vermeule, president of the India Rubber Glove Manufacturing Co., has also a great variety of interests. It would seem from the attention which financial corporations down town require from him that he must manage to attend to the details of his rubber-manufacturing business at breakfast time.

Mr. Charles R. Flint, treasurer of the United States Rubber Co., is not an easy man to find at any given point. In transacting his business—in a number of diverse directions—he blazes his way through the city as fast as cabs can carry him, and, if he finds a minute at his desk, a roomfull of clerks and a stenographer or two are in close attendance.

Mr. Joseph Banigan, president of the United States Rubber Co., disposes of an enormous amount of business, but all in the most courtly manner, and always seemingly as placid as the gulf stream. Mr. Banigan's ability is shown in many ways, but in none more fully than in his choice of good men, whose devotion to him and to his interests are the highest testimonial to his character.

BRAZIL'S RELATIONS WITH CHINA.

THE appropriation for the Department of Foreign Affairs of Brazil for the present fiscal year includes 66,000 milreis for a legation and three consulates in China. It will be remembered that THE INDIA-RUBBER WORLD recently contained an article on the proposed establishment of diplomatic relations between the two countries, prompted in part by the desire of Brazil to secure Chinese immigration, this being regarded in some quarters as the true solution of the labor problem now embarrassing the India-rubber and coffee industries.

AMERICAN BOATS IN THE RUBBER TRADE.

COLOMBIA occupies a position of growing importance in the estimation of English-speaking countries desiring an extension of trade connections. It is of especial interest to would-be investors in large enterprises, and reports are frequently published of new contracts for railroads and other improvements, involving American or English capital, assisted by concessions from the Colombian government. Perhaps it is not generally known, however, that the modern, first-class steamboats plying on the Magdalena and other rivers in that country are of American construction. The *Engineering Magazine* (New York) for September contains an illustrated article on steamboating by Mr. Walker Kennedy, who reports that an important industry on the western and southern rivers of the United States consists of the building of steamboats for South American rivers. One of the illustrations represents a fleet of seven steamers on the Magdalena river, all built by the Messrs. Rees, of Pittsburgh, Pa. While no exact statistics are available, it is safe to assume that an important share of the India-rubber exported from Cartagena has been first carried on these boats of American construction.

BRITISH BICYCLE EXPORTS.

THE bicycle trade has too recently attained large proportions to have given existence to any trustworthy source of statistics relating to the extent of production. Rubber-men will be interested, however, to know that the volume of official statistics relating to British trade for 1892, recently issued, reports the total value of bicycles manufactured in the United Kingdom for export during the year at just £1,000,000. By far the largest buyers of these machines have been the United States and France, following which, in the order of their importance as buyers, were Belgium, Denmark, Germany, and Canada. Bicycle-manufacturers may be able from these figures to make some estimate of the amount of rubber used for tires, for Britain's export trade, at least.

BRIEF ABSTRACTS OF RECENT RUBBER PATENTS.

AMONG recent patents issued by the United States Patent Office, embodying applications of India-rubber or Gutta-percha to a greater or less extent, have been the following. It is not practicable here to do more than to note the use of rubber in each case, with sufficient detail to enable those who are interested to decide whether or not to look into any particular patent more fully:

TIRES.

No. 499,574.—Pneumatic Tire. Charles H. Pagett, Oxford, Ind.

In a velocipede or other wheel, the combination with the felly having a series of apertures therein, of the endless rubber tube having a continuous air-chamber, the concavo-convex protector of braided wire or wire cloth embedded in said tube between the air-chamber and the periphery, the wire rod having an eye formed at one end through which the other end passes so that said ends overlap each other, the screw-threaded eye bolts through said rod passes, which pass through the tire and the apertures in the felly and the securing nuts.

No. 499,600.—Pneumatic Tire. Walter Sherbundy, Akron, Ohio.

A pneumatic tire composed of an outer tube of one or more layers, an inner air-tube cemented to the interior of the outer tube on the "tread" half and separated therefrom on the "rim" half forming two distinct air-chambers, and means for inflating either air-chamber.

No. 499,850.—Cover for Pneumatic Tires. Oliver Toomey, Canal Dover, Ohio.

The combination with a vehicle wheel having a pneumatic tire of removable protector consisting of two or more sheet metal sections, semi-circular in cross section extending around said tire and completely concealing the same, and means for connecting the ends of said sections together.

No. 500,205.—Pneumatic Tire. Isaac H. Heyelinger, Philadelphia.

As an article of manufacture a pneumatic tire for vehicle-wheels consisting of a series of elongated, cylindrical, hollow, and flexible sections charged or adapted to be charged with an elastic gas under pressure, said sections having rounded ends, and substantially cylindrical external surfaces, and adapted to be so applied to or replaced on said wheel, at different times, as to present different sides of said cylinder or cylinders as wearing surfaces in contact with the ground, and said sections detachably secured together by fastenings seated in the opposite ends thereof and secured at said ends to the wheel around the periphery of which they are extended in a continuous chain.

No. 500,368.—Vehicle-Wheel. Frank H. Bolte, Milwaukee, Wis., assignor to the Serecombe-Bolte Manufacturing Co., same place.

A wheel having its rim provided with a peripheral opening in combination with a tire comprising an air-tube diametrically contractable under inflation, and a protective covering for the tube provided with stiff out-turned flanges that snugly engage the rim-opening and have their inner faces in frictional contact, whereby the sharp edges or corners of said rim-opening act as fulcrums and there is a leverage or resistance of each cover flange against the other.

No. 500,468.—Pneumatic Tire. Horace B. Boyd, Cambridge City, assignor of one-half to Lawson A. Boyd, Indianapolis, Ind.

A pneumatic tire composed of rubber, with a metal shield between the inner and outer portions of the rubber, which shield is composed of metal plates hinged and pivoted together.

No. 500,639.—Pneumatic Tire. Charles F. Warner, Clearwater, Minn.

In a pneumatic tire, the combination with the flexible airtight cell, canvas sheaths and outer elastic wearing sheathing, of the flexible metallic strips interposed between the canvas

sheaths longitudinally of the tire and united by lacing and the diagonally woven wire sheathing also interposed between the canvas sheaths and connected to the flexible metallic strips.

No. 500,658.—Pneumatic Tire. Rudolph W. Huss, Chicago, Ill., assignor to Henry A. Lozier, Cleveland, Ohio.

A hollow or pneumatic tire, having along its tread a reinforcing layer of cross threads and fabric adapted for stretch, and having its sides reinforced against longitudinal stretch.

No. 500,944.—Pneumatic Tire. George Pickel, Berlin, Germany.

In combination with a pneumatic tire, an inflating tube secured to the tire, a transverse plug capable of being turned within a suitable aperture of the said inflated tube the bore of the inflating tube being of different diameters on opposite sides of the said transverse plug, and the bore of the plug being likewise made in two portions of different width, corresponding with the width of the bore of the inflating tube, and a valve freely movable in the wider portion of the bore of the transverse plug, the said plug being provided with a shoulder adapted to form a seat for the valve.

No. 501,239.—Bicycle-Tire. Otto L. Wullweber, Chicago, Ill.

The combination with an elastic tire having its vertical sides flat and parallel, of an annular air-cushion immediately within and for the purpose of supporting the tire, and a tubular felly for inclosing the air-cushion and being of greater internal width than said cushion and having its periphery longitudinally channelled to receive the tire, and parallel radial flanges upon each side of said channel adapted to frictionally embrace the tire.

No. 501,290.—Pneumatic Tire. Joseph G. Maumy, Erie, Pa., assignor of one-half to Thomas Brown, same place.

In a pneumatic tire, the combination of the felly having transverse depressions therein, the tire having a peripheral slit in its inner periphery, the chain bands at the edges of said tire, and means for drawing them into said depressions and holding them.

No. 501,386.—Wheel Tire. Charles W. Van Houten, Philadelphia, Pa.

The combination in a tire for bicycle and other wheels of the two independent sections, one section being inflatable and situated wholly within the felly of the wheel and having a substantially flat outer surface, and the other section having its main portion beyond the felly and so arranged with respect to the inflatable section that the said inflatable section will act as a cushion.

No. 501,409.—Spring-Rim for Wheels. John B. Dunlop, Sr., and John B. Dunlop, Jr., Dublin, Ireland, said Dunlop, Jr., assignor to said Dunlop, Sr.

The combination with a wheel of bands of canvas secured on the rim, blocks of rubber secured at intervals to the said bands, outer canvas bands covered with India-rubber to form the tread surface of the wheel, and side strips of rubber or other suitable material to cover the spaces between the blocks.

No. 501,588.—Wheel-Tire. Emile H. Grenet, Paris, France.

A tire for a velocipede consisting of a series of tubes interwoven together.

No. 501,716.—Pneumatic Tire. Frederick W. Hardwick, Passaic, N. J., assignor to the New York Belting and Packing Co., Limited.

A pneumatic tire, having one or more slits in the outer tube of the tire, whereby access can be had to the interior of the tube, provided with lacings and lacing holes, whereby the same can be closed, that portion of the tube, which is adjacent to the slits, being strengthened by one or more layers of linen, or other fibrous material.

BOOTS AND SHOES.

No. 499,241.—Overshoe. James O. Mattison and Leroy M. Phillips, Youngsville, Pa.

The combination with a shoe having a continuous or unbroken opening for the entrance of the foot, of a spring arranged along the edge of the opening and extending across the instep and thence rearwardly toward the heel along both sides of the opening and normally pressing the sides of the opening inwardly toward the foot of the wearer.

No. 500,007.—Elastic-Gore Marker. John Kent, Brockton, Mass.

A gore-marker, comprising in its construction a bed to support the gores, a plurality of depressible markers of trough-like character having slitted openings formed in their bottoms longitudinally thereof.

No. 500,816.—Heel. Michael Murray, Baltimore, Md.

A heel for boots or shoes comprising an unyielding top lift, a number of unyielding intermediate lifts, one of which is shorter than the others and occupies the forward end only of the heel, a rubber section fitted at the rear of said short lift between the adjoining lifts and secured thereto, and a line of nails passing through the forward ends of all the lifts, including the short lift, and wholly in front of the rubber section.

No. 500,385. Shoe. William Hall, Fort Wayne, Ind.

In a boot or shoe the combination of a complete upper attached to an insole, and a slipper upper provided with a wearing sole and adapted to fit over and inclose the upper, the two being attached to each other so as to hold a spring sole between them; and a spring sole consisting of blocks of elastic material placed between said two uppers, the blocks being arranged with spaces between them, so that they may expand and contract separately in all directions.

No. 501,082.—Rubber Boot. Elias Kissinger, Girardville, Pa.

As an improved article a rubber boot comprising the leg, vamp, the outsole, the insole, the foxing, a stiffener secured to the vamp, consisting of the body portion, the central wing and the diverging wings, the leather counter, a stiffener located between the counter and heel portion, projecting up above the counter and having a series of perforations therein through which portions of the rubber project.

MECHANICAL GOODS.

No. 499,266.—Rubber Packing-Ring or Gasket. John V. Voorhees, Jersey City, N. J.

A packing, consisting of a rubber or similar tube, in ring form, having a continuous flexible movable core projecting to form a tongue, at one of the meeting ends of the tube of which the ring is formed, said tongue being adapted to fit into the second of said meeting ends of the tube, whereby a strong packing and a good joint are provided.

No. 499,472.—Conveyer-Belt. Thomas Robins, Jr., Morristown, N. J.

As an article of manufacture, a conveyer-belt consisting of a backing, and a facing secured thereto and provided with a raised or thickened central portion and thinner or attenuated side portions, the said thickened portion being beveled or tapered down into the said thinner or attenuated side portions, whereby the life and wear of the belt may be increased to the maximum for a given amount of facing material.

No. 499,760.—Hose-Clamp. Howard B. Sherman, Battle Creek, Mich.

As an improved article of manufacture, the herein described hose-clamp, made of sheet metal, and consisting of a band having at each of its ends and integral therewith flanges and lugs or ears, said lugs or ears being thickened at their upper edges, said band being formed with a longitudinal opening bounded on all four of its sides by portions thereof and with channels located in its solid portion at the ends of said opening and between said lugs or ears, and with a reversely-bent tongue spanning between the ends of the band and received by said

channel and means engaging said flanges and securing the ends of the band together.

No. 499,978.—Belt. John A. Ferguson, Ferguson, Mo.

The herein described belting having its inner surface grooved longitudinally to provide an air-passage or passages, and the remaining portion of said surface flat, the grooved portion of said surface being within the limits named, and the grooves being formed by means of strips attached to the main portion of the belt.

No. 499,985.—Hose-Band. Isaac St. C. Goldman, Los Angeles, Cal., assignor to Irwin P. Doolittle, same place.

A hose-band, comprising a flexible body having parallel wire members, a curved lever fulcrumed at one end of the body and having outwardly extending parallel wings with hooks at their inner ends, a metallic strap secured to the opposite end of the body and provided with perforations to engage the hooks, and a fastening device to lock the lever.

No. 500,029.—Hose-Strap Fastener. Bernard W. McKensie, San Diego, Cal.

A tool for fastening wire straps or ties on hose to secure the latter to their couplings, comprising two pivoted jaws, one jaw being provided with a lip on the upper side of its front end, and the other with a longitudinal passage on its inner side adapted to receive the upper jaw and with longitudinal apertures to receive the free ends of the wire forming the fastener.

No. 501,125.—Hose-Nozzle. Peter Wilberg, New York city.

The combination with the body of a hose-nozzle having a spherical head and perforated axially, of a shell fitted on said head and having a series of holes and exterior screw-threads, and a thimble rotatable on the end of said nozzle without longitudinal movement and having interior screw-threads to engage the screw-threads on said shell.

SURGICAL APPLIANCES.

No. 499,823.—Truss-Pad. Giles S. Cranson, Jonesville, Mich.

A truss-pad having a concave face provided with a central pocket for an absorbent body, a groove in its edge, a soft rubber ring confined in said groove and forming the marginal bearing face of the pad, and concentric corrugations formed in the face of the pad between its central pocket and its marginal ring.

DRUGGISTS' SUNDRIES.

No. 500,568.—Water Bandage. George F. Ellis, Binghamton, N. Y.

In a water bandage, the combination of a coiled rubber tube, a textile backing for said tube, felt retained between the coils of the tube, and a spiral wire connected with said tube.

STATIONERS' SUNDRIES.

No. 501,421.—Rubber Eraser. Arthur S. Hobart and Alonzo W. Eldredge, Big Rapids, Mich.

An eraser-holder, consisting of a case for wholly inclosing and covering the eraser and composed of two sections pivoted together intermediate their ends so that by pressing on one end the opposite end is opened, in combination with the eraser and a spring acting to close the sections together.

No. 501,893.—Eraser-Holder. William M. Marshall, Philadelphia, assignor of three-fourths to Samuel Reiter, trustee, same place, and Josiah Torr, Atlantic City, N. J.

A holder having a cover, a rubber eraser held in one end thereof, and a removable cleaner inserted in the opposite end.

MISCELLANEOUS.

No. 499,354.—Composition of Matter as a Substitute for Hard Rubber. James De S. Brown, Philadelphia, assignor to himself and Henry Ayres, same place.

The composition resembling hard rubber and consisting of bitumen and sulphur, with fine filling, as lead peroxide for example, and gum camphor incorporated with said bitumen, and toughened and hardened by heat.

INDIA-RUBBER SCRAP.

A RESTAURATEUR of Providence, R. I., has completely covered his cashier's desk with ribbed rubber sheet. When asked why, he replied: "I find that some of my customers, as I do myself, dislike to hear the chink and noise of coin. The rubber completely muffles the sound; besides, the coin will not well roll upon it, endangering its fall to the floor. But a great many persons have the habit of throwing coins down, and the rubber prevents both troubles arising from that habit. At first I had a coin mat, but I soon discovered another habit of the public. Every boy, and most men, if they stood a fraction of a minute before me, unconsciously went hard at work to pick out one of the points which make up the coin-mat. I paid well for my little experiment with human nature, but as for the ribbed rubber sheet, I dubbed it long ago 'Eureka.'"

* * *

THE number of hard-rubber specialties for electrical work is constantly increasing, the latest being a tubing which is also flexible, and which can readily be bent without danger of breaking or cracking. Hard-rubber specialties for electrical work include window-tubes, lamp-switch-handles, hook-insulators, key-knobs, switch-handles, telephone-receivers, phonograph-tubes, nipples, bushings, cord-adjusters, magnet-heads, sounder-covers, relay-covers, battery-cells, sheet, rods, tubing. In soft rubber there are friction-tape, bushings, socket-covers, and tubing. Hard rubber is now used in the engine room with mechanical appliances as follows: For insulating cleats, frictions and intermediate gears, friction clutches, brake-shoes, rollers, powder-press plates, glazing strips, blow-pipe-handles, gage-cock handles, bearing surfaces, condenser-ferrules, gibs for engine cross-heads, etc.,

* * *

A NEW car-spring utilizes both rubber and steel, the latter being spirally wound round a cone of the former. In this combination the rubber is simply held in position by the steel spiral spring, and the rubber cone is not weakened by a bolt fastening. A new principle is also involved; the steel spring being a trifle longer than the rubber a light load can be taken without calling the latter into use. But when the strain becomes severe both springs are utilized, and thus a "graduated" car-spring is the result, and one not too elastic. It is proper to mention that the car-spring on street-railways is now receiving a large share of attention. If it is too elastic it soon hammers the rail to pieces; if it is too stiff, the passenger suffers.

* * *

THE use of wringers is well known, but the collar-and cuff-dampener, with rubber rolls, is probably less so. It has rollers some seven inches in diameter and thirty inches long, the largest size being used for shirts. With these huge rolls the goods are rapidly passed from the mangle to the ironer in an almost dry condition. A large wringer is used in dye-houses abroad, costing as much as £5 10s., with 21-inch rollers fitted with extra strong springs and with a handle on each roller.

* * *

AIR-BRAKE manufacturers are now endeavoring to promote the efficiency of the brake by increasing the pressure. They have lately increased it 43 per cent. but expect to bring it up 100 per cent. This high pressure is to last only fifteen seconds, and is to be used in cases of emergency. It is calculated that with a train running at the rate of seventy-five miles an hour its speed can be reduced with the higher pressure at the rate of

2½ miles per second, or in fifteen seconds the speed would be brought down 37½ miles per hour. This immense strain will necessitate the overhauling of the whole apparatus as it now stands to make it equal to the demands required of it, and naturally the rubber hose will come in for some share of attention. The experiments are being now made on the Empire express of the New York Central railroad, which is probably the fastest train in the world, although the Columbian express on the same road might be its rival. The train-pipe strain on the Pennsylvania road is low—only seventy pounds—necessitated by the road having to adapt itself to the many different cars passing over it from foreign roads.

* * *

HOSE-REELS for the garden, sold in London, are made with a strong wrought-iron frame and galvanized reels. The largest hold 300 feet of ½-inch hose and cost 20 shillings. They are large enough for a village fire-department, being quite the opposite of our light wooden affairs.

* * *

WHEN MY WIFE PLAYS THE HOSE.
THO' I concede my better half
For music has no passion,
No skill with any instrument
That now is in the fashion,
No talent for fantasias,
Gavottes or olios,
Yet there is music in the air
Whene'er she plays the hose.

She starts to sprinkle down the street,
Then turns to look for Arty,
And meanwhile soaks and saturates
A passing picnic party,
Then gardenward the nozzle turns
As by the parson goes,
And thus the baby's drenched and choked
When my wife plays the hose.

She thinks to spray a porch that long
Her care has been inviting,
And storms the open window where
Her guileless spouse is writing.
Upon the just and unjust she
The gushing fountain throws
And wakes a passionate response
Whene'er she plays the hose.

—Boston Courier.

* * *

It is not much of a newspaper that cannot now and then indulge in an India-rubber witticism, even if it is no funnier than this extract from the Carthage (Mo.) Democrat:

"Don't throw your old rubber boots and shoes away. Save them for the agents of the chewing-gum factories, who buy them up from all parts of the country. Pulverized rubber boots and overshoes flavored with vanilla, strawberry and other fashionable extracts, make a very fashionable chewing gum."

* * *

THE large restaurants in New York are beginning the extensive use of the rubber tip on chairs. The proprietors say that it largely decreases the noise and bustle and does away with the harsh scraping of a chair leg on a tessellated floor. At the same time it saves wear and tear more than they expected when first introduced.

THE LATEST RUBBER-TRADE STATISTICS.

IMPORTS of India-rubber into the United States from all sources during the fiscal year ended June 30, 1892, were stated at 39 976,205 pounds, of the value of \$19 718,216, or 49 cents a pound. In the next twelve months the imports increased to 41,547,680 pounds, with a reported value of \$29,185,485, giving an apparent value of 70 cents per pound. The average import value of rubber from Brazil was 53 cents a pound in 1892 and 86 cents a pound in 1893—an increase of 62 per cent. in apparent price. As the market quotations of India-rubber showed no corresponding increase, an investigation of the matter was made by the Chief of the Bureau of Statistics, showing that invoice values during the latter year had been stated in the depreciated paper currency of Brazil, instead of gold as formerly. It seems that the government last year, with a view to relieving importers of as much expense as possible, issued a circular stating that consular currency-certificates would no longer be required with invoices of goods entered free of duty. Without such certificates the customs officers had nothing to guide them in estimating the gold values of goods entered from countries having a depreciated paper currency. The effect was to show a very much greater excess of imports than really existed, and to create a wrong public impression with regard to balances of trade. Under regulations which have now been adopted, a consular currency-certificate will be required for all goods from countries having a depreciated currency, but without fee; thus effecting the object of the circular of February, 1892, and at the same time giving the values expressed in invoices the official basis they formerly had.

The imports of crude India-rubber and Gutta-percha for July and for the seven months ending July 31, compared with the preceding year, are officially stated as follows:

| | POUNDS. | | Seven Months. | |
|-------------------|---------|-----------|---------------|------------|
| | July. | | July. | |
| | 1893. | 1892. | 1893. | 1892. |
| India-rubber | 975,323 | 1,845,674 | 26,117,838 | 22,910,224 |
| Gutta-percha | 18,227 | 41,243 | 303,477 | 255,449 |
| Total | 993,550 | 1,886,917 | 26,421,315 | 23,165,673 |

| | VALUES. | | Seven Months. | |
|-------------------|-----------|-----------|---------------|--------------|
| | July. | | July. | |
| | 1893. | 1892. | 1893. | 1892. |
| India-rubber | \$513,767 | \$801,137 | \$11,110,648 | \$12,349,826 |
| Gutta-percha | 5,794 | 13,314 | 80,032 | 92,509 |
| Total | \$519,561 | \$814,451 | \$11,190,680 | \$12,442,335 |

PARA.

FROM Norton & Co.'s Pará rubber statistics the following table has been compiled, showing the movement (in pounds) at that port for the present year, up to the end of July:

| MONTHS. | ARRIVALS. | SHIPMENTS. | | |
|----------------|------------|----------------|-----------|------------|
| | | United States. | Europe. | Total. |
| Stock | 1,707,200 | | | |
| January | 3,300,000 | 2,202,200 | 1,386,000 | 3,588,200 |
| February | 6,600,000 | 2,620,200 | 748,000 | 3,368,200 |
| March | 4,840,000 | 4,015,000 | 1,738,000 | 5,753,000 |
| April | 2,365,000 | 2,413,400 | 1,504,800 | 3,918,200 |
| May | 1,826,000 | 1,544,400 | 1,126,400 | 2,670,800 |
| June | 1,914,000 | 1,091,200 | 1,091,200 | 2,182,400 |
| July | 1,980,000 | 959,200 | 1,060,200 | 2,028,400 |
| Totals | 24,532,200 | 14,845,600 | 8,663,600 | 23,509,200 |
| | 23,509,200 | | | |
| Stock | 1,023,000 | | | |

PARÁ STATISTICS FOR JULY.

[By courtesy of NORTON & CO.]

| | Pounds. | Pounds. |
|-----------------------------|-----------|-----------|
| Stock on June 30 | 1,071,400 | |
| Receipts during July | 1,980,000 | 3,051,400 |
| Exports—United States | 950,200 | |
| Europe | 1,060,200 | 2,028,400 |
| Stock on July 31 | | 1,023,000 |

THE UNITED KINGDOM.

BRITISH imports of crude India-rubber for the month of July amounted to 2,423,232 pounds, of the value of £241,489,—a heavy increase over imports for the corresponding months for 1892 and 1891, which reached respectively 1,979,376 and 1,689,184 pounds. A comparison of imports for seven months (January-July), however, shows a different result, which is indicated in detail in this table (expressing pounds):

| | Imports. | Exports. | Consumption. |
|--------------------------|------------|-----------|--------------|
| Seven months, 1891 | 18,925,200 | 8,580,432 | 10,344,768 |
| Seven months, 1892 | 18,340,112 | 9,419,968 | 8,921,144 |
| Seven months, 1893 | 18,265,440 | 9,505,888 | 8,759,552 |

The imports of crude Gutta-percha, in excess of exports, reached 1,933,120 pounds during January-July, 1893, against 4,060,111 pounds during the corresponding period in 1891.

The value of British manufactures of India-rubber exported during the first seven months was £677,410 in 1893; £693,425 in 1892, and £710,708 in 1891.

GERMANY.

THE imports of crude India-rubber and Gutta-percha during June amounted to 1,067,440 pounds in 1893 and 1,005,400 pounds in 1892. The imports for the last half-year January-June also show a heavy increase over the corresponding period of 1892, as follows:

| | 1892. | 1893. |
|-----------------------------------|-----------|-----------|
| Imports, January-June | 5,031,180 | 5,522,660 |
| Exports for the same period | 1,061,280 | 1,092,300 |
| Net imports | 3,969,900 | 4,430,360 |

The exports of German manufactures of rubber (in pounds) are shown below, for corresponding periods in two years:

| | JANUARY-JUNE. | |
|-----------------------------------|---------------|-----------|
| | 1892. | 1893. |
| Hard Rubber in Mass | 41,800 | 18,260 |
| Rubber Threads | 133,930 | 132,660 |
| Coarse Soft Rubber Goods | 1,326,840 | 1,242,120 |
| Fine Soft Rubber Goods | 1,056,660 | 1,033,340 |
| Finished Hard Rubber Goods | 503,140 | 478,060 |
| Rubber Toys | 408,980 | 379,280 |
| Tissues Woven with Rubber | 375,320 | 359,920 |
| Elastic Hosiery | 16,280 | 17,160 |
| Waterproofed Hempen Tissues | 85,580 | 121,220 |
| Unclassified Wares | 660 | 3,180 |
| Total | 3,949,240 | 3,785,200 |

The imports of rubber manufactures for the half-year were 1,093,180 pounds in 1892, and 1,300,200 pounds in 1893. The principal increase in imports was shown in fine soft rubber goods and in rubber threads. A growth in German consumption of rubber goods is evident from (1) the increase in imports of crude rubber; (2) the decline in the exportation of rubber manufactures; and (3) the increase in rubber goods imported.

PORT OF NEW YORK.

THE figures herewith express the values of rubber goods exported from the port of New York during the five weeks ending August 29, 1893, as declared at the Custom House. It may be mentioned that the exports from New York amount usually to about 53 per cent. of the total exports of rubber goods from the United States.

| To— | Value. | To— | Value. |
|---------------------------|--------|---------------------------|----------|
| Africa, British..... | \$ 22 | Japan..... | \$1,064 |
| Antwerp..... | 1,917 | Liverpool..... | 1,338 |
| Australia..... | 608 | London..... | 552 |
| Barcelona..... | 156 | Marseilles..... | 1,296 |
| Berlin..... | 1,462 | Mexico..... | 2,495 |
| Bolivia..... | 182 | New Zealand..... | 1,044 |
| Brazil..... | 210 | Nuremberg..... | 1,191 |
| Bremen..... | 1,630 | Peru..... | 414 |
| Bremerhaven..... | 670 | Porto Rico..... | 354 |
| Central America..... | 452 | Rotterdam..... | 2,984 |
| Christiania..... | 231 | San Domingo..... | 105 |
| Colombia..... | 1,380 | Sandwich Islands..... | 425 |
| Cuba..... | 2,911 | Venezuela..... | 968 |
| East Indies, British..... | 28 | West Indies, British..... | 251 |
| Ecuador..... | 300 | West Indies, Danish..... | 56 |
| Glasgow..... | 299 | West Indies, Dutch..... | 76 |
| Guiana, British..... | 7 | West Indies, French..... | 2 |
| Hamburg..... | 1,457 | Zurich..... | 402 |
| Havre..... | 4,235 | | |
| Hayti..... | 141 | Total..... | \$33,315 |

The exports of crude India-rubber during the same period amounted in value as follows:

| To— | Value. | To— | Value. |
|----------------|----------|----------------|-----------|
| Amsterdam..... | \$ 2,128 | Liverpool..... | \$170,982 |
| Bremen..... | 3,000 | London..... | 10,788 |
| Hamburg..... | 124,815 | | |
| Havre..... | 12,211 | Total..... | \$324,424 |
| Hull..... | 500 | | |

There may also be mentioned shipments of India-rubber scrap to London to the value of \$890.

FRANCE.

THE latest official French trade returns show the imports of crude India-rubber and Gutta-percha (in pounds) and the value (in francs) for the seven months, January-July, in three successive years, as follows:

| | 1891. | 1892. | 1893. |
|-----------------------------------|------------|-----------|------------|
| All arrivals..... | 5,177,032 | 4,629,136 | 4,630,000 |
| Deliveries for home consumption.. | 4,867,948 | 3,962,263 | 4,200,460 |
| Value of deliveries..... | 13,629,136 | 9,509,433 | 10,081,104 |

The general exports of rubber goods during the first seven months of 1893 amounted to 1,193,577 pounds, and the general imports during the same period to 1,252,240 pounds. The increase in the imports of rubber footwear was 71.5 per cent. as compared with the same period of 1892. The exports of rubber footwear increased by 31 per cent.

THE CONVERSE GOLDEN WEDDING.

THE evening of September 4 was the occasion of the celebration of the golden wedding of Mr. and Mrs. E. S. Converse, in their beautiful home at Malden, Mass. Elisha S. Converse and Mary E. Edmunds, daughter of Hosea Edmunds, were married at Thompson, Conn., where both resided, in 1843. The best man was Dr. Stephen S. Briggs, now of Brooklyn, N. Y., and the bridesmaid was a sister of Mr. Converse, now Mrs. Emeline Williams, of Malden, Mass. It was a remarkably pleasant feature, as well as a somewhat uncommon one, that both were able to be present at the fiftieth anniversary of the wedding. The Converses removed from Malden in 1850 and have since maintained their residence there, although they have a town house on Beacon street, Boston, where they remain during part of the winter. In 1853 Mr. Converse became treasurer of the Malden Manufacturing Co., which, by change of name a few years later, became the Boston Rubber Shoe Co., now one of the largest corporations of the sort in the world, owing a large part of its growth to the years of hard work which Mr. Converse put into it, from the day of his assuming the office of treasurer and buying- and selling-agent to more recent years, when his name has become to be synonymous with the name of the corporation. Mr. Converse's great activity as a business man scarcely need be recounted for the readers of THE INDIA RUBBER WORLD. He has held many positions of business trust, being president of the First National Bank of Malden and the Rubber Manufacturers' Mutual Insurance Co.; a trustee of the Malden Hospital, and a director of several banks; a trustee of the Malden Public Library, and of Wellesley College, beside being a leading member in the Baptist church. He has also been a member of the State legislature and was the first mayor of Malden. Upwards of a thousand invitations were sent out for the golden wedding, and the attendance was very large. Beside the numerous gifts from members and the immediate friends of the family, there were remembrances from the

Malden National Bank, employes of the Boston Rubber Shoe Co., trustees of the Malden Public Library, members of the first city government of Malden, and others. Mr. Converse's daughters—Mrs. Costello C. Converse and Mrs. Lester Leland—were present with their husbands, and his son Harry E. Converse, with Mrs. Converse.

TIGHT MONEY NOT WHOLLY A BAD THING.

“DO you know,” remarked a rubber-manufacturer who is one of the observant kind, “that the tight money market has not been a bad thing all around for the rubber-shoe manufacturers? It has bothered them some, to be sure, where they had big pay-rolls, but it has kept new mills from starting up. I know of four different schemes to start rubber-shoe factories that were nipped in the bud by the sudden scarcity of available capital. Mind, I am not saying that the companies now in the field are at all nervous about outsiders doing much harm as competitors, but after all they are just as comfortable with no one else in the field. It sort of unsettles prices and makes the retailer hope for what he isn't likely to get to have incidents of that sort occur.”

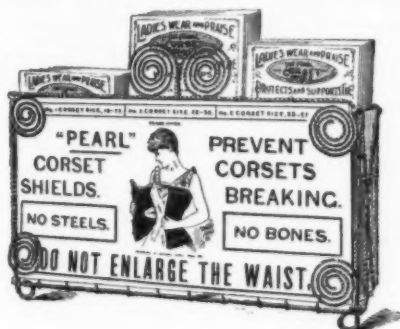
PREMIUMS FOR RUBBER-PLANTING.

THE legislature of the Mexican State of Hidalgo has enacted a law exempting from taxation for the next fifteen years any lands planted in India-rubber, coffee, ramie, and certain other crops. The State executive is authorized to award premiums, not exceeding 10 per cent. of the capital invested in each case, to the owners of the best plantations of each of the crops mentioned. Hidalgo is separated from the Gulf coast by the northern part of the State of Vera Cruz, and is connected by river with the Gulf port of Tuxpan, from which a good deal of rubber has been shipped at various times. Hidalgo adjoins, on the north, the State of Mexico, and has rail communication with the capital of the republic and the outside world.

NEW GOODS AND SPECIALTIES.

THE manner in which goods are placed upon the market very often decides their success or failure as sellers. In no line is this more evident than in that termed "Notions."

A neat package, an artistic display-card, will often catch the feminine fancy and effect a sale where nothing else would do it. When the "Pearl" corset-shield was first brought out we were not slow to predict for it a grand success. This prediction



was based primarily on the undoubted merit of the article itself, and further upon the knowledge we had of the inventor's ability to place it before a fastidious public in a manner that should win for it friends from the start. This has been done most successfully. The accompanying illustration shows the way in which the shields are displayed on the counters of stores and is but one of many artistic devices that Mr. Pearl has designed to call attention to his valuable invention.

THE "OBEA" TENNIS-GLOVE.

Now that tennis is second to baseball in popular interest, appliances for use in the game are praised or condemned according to their value. Rubber has found quite a place in the game, and has nowhere been more effective than in the glove shown in the illustration. This glove, known as the "Obea," is a radical departure from everything in the sporting glove line heretofore made. While it has a back that holds it firmly on the hand, it is so open that it has none of the heating effects



that a closed glove would produce. The palm is of the best of Pará rubber, which affords a grip on the handle of a racquet that is far better than that afforded by the rubber tube often slipped over racquet handles. If the hand sweats there is no danger of that provoking slipping of the handle at a critical time, which is almost sure to happen when not protected by a

glove. These goods have had a large sale this season, and will undoubtedly grow in popularity as they become known. For sale by Wright & Ditson, Boston.

THE ELASTIC INK-HOLDER.

WHAT is known as the Elastic ink-holder is a neat invention designed to assist the writer who is obliged to dip the pen too often for comfort. It is a diminutive shield of soft rubber, so made that it springs over the point of the pen and also over the swell of the sides. Here it clings and when the pen is dipped into the ink it takes up and holds several drops, letting them down as they are needed in keeping the point in shape for writing. The invention is a simple one but it works and the appliance is so cheap and easily attached that it ought to have a good sale. Manufactured by the Elastic Ink Holder Co., No. 20 Market square, Providence, R. I.

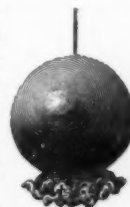
A POPULAR NEW GARMENT.



A GARMENT new this season and a popular seller is the "Detroit," shown in the illustration. It is double-breasted, with puff sleeves, coat-back, belt, and a full military cape. It is ordinarily made up in double textures, and is a very desirable garment for winter wear as a storm ulster. It is made sufficiently warm and heavy to be used by the wearer without any other overgarment, thus taking the place of overcoat or ulster, and at the same time fulfilling its mission as a mackintosh. It is considered one of the most attractive ladies' garments yet offered the trade. The garment is skilfully designed, and made up in the most careful manner. The manufacturers offer scores of styles of fabrics, many in original designs, from which it may be made. Manufactured by the Standard Rubber Corporation, Brockton, Mass. This and other attractive styles are shown in their catalogue.

THE ROBINSON SLATE-CLEANER.

THE eraser and pencil-tip of rubber have long been articles that are familiar to every student and to be found in the most poorly equipped school-room. A further use of rubber for the scholar is in the slate-cleaner herewith shown. This is simply a half sphere of molded India-rubber, in the hollow part of which is placed a bit of sponge saturated with water. The rubber keeps the cleaner from moistening anything when not in use, and protects the hand of the scholar from wetting. When not in use the cleaner may be hung by the side of the desk and is always ready for use. Large numbers of them have already been sold for school supplies and the demand promises to increase. Manufactured by the Tower Manufacturing and Novelty Co., New York.



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| Antwerp..... | 1,917 | Liverpool..... | 1,338 |
| Australia..... | 608 | London..... | 552 |
| Barcelona..... | 156 | Marseilles..... | 1,296 |
| Berlin..... | 1,462 | Mexico..... | 2,495 |
| Bolivia..... | 182 | New Zealand..... | 1,044 |
| Brazil..... | 210 | Nuremberg..... | 1,191 |
| Bremen..... | 1,630 | Peru..... | 414 |
| Bremerhaven..... | 670 | Porto Rico..... | 354 |
| Central America..... | 452 | Rotterdam..... | 2,984 |
| Christiania..... | 231 | San Domingo..... | 105 |
| Colombia..... | 1,380 | Sandwich Islands..... | 425 |
| Cuba..... | 2,911 | Venezuela..... | 968 |
| East Indies, British..... | 28 | West Indies, British..... | 251 |
| Ecuador..... | 300 | West Indies, Danish..... | 56 |
| Glasgow..... | 299 | West Indies, Dutch..... | 76 |
| Guiana, British..... | 7 | West Indies, French..... | 2 |
| Hamburg..... | 1,457 | Zurich..... | 402 |
| Havre..... | 4,235 | | |
| Hayti..... | 141 | Total..... | \$33,315 |

The exports of crude India-rubber during the same period amounted in value as follows:

| To— | Value. | To— | Value. |
|----------------|----------|----------------|-----------|
| Amsterdam..... | \$ 2,128 | Liverpool..... | \$170,982 |
| Bremen..... | 3,000 | London..... | 10,788 |
| Hamburg..... | 124,815 | | |
| Havre..... | 12,211 | Total..... | \$324,424 |
| Hull..... | 500 | | |

There may also be mentioned shipments of India-rubber scrap to London to the value of \$890.

FRANCE.

THE latest official French trade returns show the imports of crude India-rubber and Gutta-percha (in pounds) and the value (in francs) for the seven months, January-July, in three successive years, as follows:

| | 1891. | 1892. | 1893. |
|-----------------------------------|------------|-----------|------------|
| All arrivals..... | 5,177,032 | 4,629,136 | 4,630,000 |
| Deliveries for home consumption.. | 4,867,948 | 3,962,263 | 4,200,460 |
| Value of deliveries..... | 13,629,136 | 9,509,433 | 10,081,104 |

The general exports of rubber goods during the first seven months of 1893 amounted to 1,193,577 pounds, and the general imports during the same period to 1,252,240 pounds. The increase in the imports of rubber footwear was 71.5 per cent. as compared with the same period of 1892. The exports of rubber footwear increased by 31 per cent.

THE CONVERSE GOLDEN WEDDING.

THE evening of September 4 was the occasion of the celebration of the golden wedding of Mr. and Mrs. E. S. Converse, in their beautiful home at Malden, Mass. Elisha S. Converse and Mary E. Edmunds, daughter of Hosea Edmonds, were married at Thompson, Conn., where both resided, in 1843. The best man was Dr. Stephen S. Briggs, now of Brooklyn, N. Y., and the bridesmaid was a sister of Mr. Converse, now Mrs. Emeline Williams, of Malden, Mass. It was a remarkably pleasant feature, as well as a somewhat uncommon one, that both were able to be present at the fiftieth anniversary of the wedding. The Converses removed from Malden in 1850 and have since maintained their residence there, although they have a town house on Beacon street, Boston, where they remain during part of the winter. In 1853 Mr. Converse became treasurer of the Malden Manufacturing Co., which, by change of name a few years later, became the Boston Rubber Shoe Co., now one of the largest corporations of the sort in the world, owing a large part of its growth to the years of hard work which Mr. Converse put into it, from the day of his assuming the office of treasurer and buying- and selling-agent to more recent years, when his name has become to be synonymous with the name of the corporation. Mr. Converse's great activity as a business man scarcely need be recounted for the readers of THE INDIA RUBBER WORLD. He has held many positions of business trust, being president of the First National Bank of Malden and the Rubber Manufacturers' Mutual Insurance Co.; a trustee of the Malden Hospital, and a director of several banks; a trustee of the Malden Public Library, and of Wellesley College, beside being a leading member in the Baptist church. He has also been a member of the State legislature and was the first mayor of Malden. Upwards of a thousand invitations were sent out for the golden wedding, and the attendance was very large. Beside the numerous gifts from members and the immediate friends of the family, there were remembrances from the

Malden National Bank, employes of the Boston Rubber Shoe Co., trustees of the Malden Public Library, members of the first city government of Malden, and others. Mr. Converse's daughters—Mrs. Costello C. Converse and Mrs. Lester Leland—were present with their husbands, and his son Harry E. Converse, with Mrs. Converse.

TIGHT MONEY NOT WHOLLY A BAD THING.

“DO you know,” remarked a rubber-manufacturer who is one of the observant kind, “that the tight money market has not been a bad thing all around for the rubber-shoe manufacturers? It has bothered them some, to be sure, where they had big pay-rolls, but it has kept new mills from starting up. I know of four different schemes to start rubber-shoe factories that were nipped in the bud by the sudden scarcity of available capital. Mind, I am not saying that the companies now in the field are at all nervous about outsiders doing much harm as competitors, but after all they are just as comfortable with no one else in the field. It sort of unsettles prices and makes the retailer hope for what he isn't likely to get to have incidents of that sort occur.”

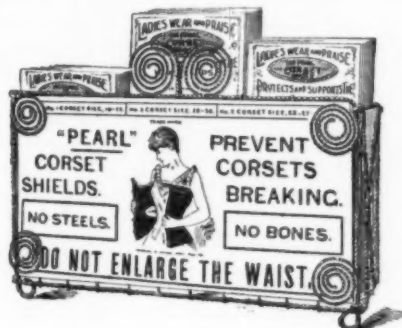
PREMIUMS FOR RUBBER-PLANTING.

THE legislature of the Mexican State of Hidalgo has enacted a law exempting from taxation for the next fifteen years any lands planted in India-rubber, coffee, ramie, and certain other crops. The State executive is authorized to award premiums, not exceeding 10 per cent. of the capital invested in each case, to the owners of the best plantations of each of the crops mentioned. Hidalgo is separated from the Gulf coast by the northern part of the State of Vera Cruz, and is connected by river with the Gulf port of Tuxpan, from which a good deal of rubber has been shipped at various times. Hidalgo adjoins, on the north, the State of Mexico, and has rail communication with the capital of the republic and the outside world.

NEW GOODS AND SPECIALTIES.

THE manner in which goods are placed upon the market very often decides their success or failure as sellers. In no line is this more evident than in that termed "Notions."

A neat package, an artistic display-card, will often catch the feminine fancy and effect a sale where nothing else would do it. When the "Pearl" corset-shield was first brought out we were not slow to predict for it a grand success. This prediction



was based primarily on the undoubted merit of the article itself, and further upon the knowledge we had of the inventor's ability to place it before a fastidious public in a manner that should win for it friends from the start. This has been done most successfully. The accompanying illustration shows the way in which the shields are displayed on the counters of stores and is but one of many artistic devices that Mr. Pearl has designed to call attention to his valuable invention.

THE "OBEA" TENNIS-GLOVE.

Now that tennis is second to baseball in popular interest, appliances for use in the game are praised or condemned according to their value. Rubber has found quite a place in the game, and has nowhere been more effective than in the glove shown in the illustration. This glove, known as the "Obea," is a radical departure from everything in the sporting glove line heretofore made. While it has a back that holds it firmly on the hand, it is so open that it has none of the heating effects



that a closed glove would produce. The palm is of the best of Pará rubber, which affords a grip on the handle of a racquet that is far better than that afforded by the rubber tube often slipped over racquet handles. If the hand sweats there is no danger of that provoking slipping of the handle at a critical time, which is almost sure to happen when not protected by a

glove. These goods have had a large sale this season, and will undoubtedly grow in popularity as they become known. For sale by Wright & Ditson, Boston.

THE ELASTIC INK-HOLDER.

WHAT is known as the Elastic ink-holder is a neat invention designed to assist the writer who is obliged to dip the pen too often for comfort. It is a diminutive shield of soft rubber, so made that it springs over the point of the pen and also over the swell of the sides. Here it clings and when the pen is dipped into the ink it takes up and holds several drops, letting them down as they are needed in keeping the point in shape for writing. The invention is a simple one but it works and the appliance is so cheap and easily attached that it ought to have a good sale. Manufactured by the Elastic Ink Holder Co., No. 20 Market square, Providence, R. I.

A POPULAR NEW GARMENT.



A GARMENT new this season and a popular seller is the "Detroit," shown in the illustration. It is double-breasted, with puff sleeves, coat-back, belt, and a full military cape. It is ordinarily made up in double textures, and is a very desirable garment for winter wear as a storm ulster. It is made sufficiently warm and heavy to be used by the wearer without any other overgarment, thus taking the place of overcoat or ulster, and at the same time fulfilling its mission as a mackintosh. It is considered one of the most attractive ladies' garments yet offered the trade. The garment is skilfully designed, and made up in the most careful manner. The manufacturers offer scores of styles of fabrics, many in original designs, from which it may be made. Manufactured by the Standard Rubber Corporation, Brockton, Mass. This and other attractive styles are shown in their catalogue.

THE ROBINSON SLATE-CLEANER.

THE eraser and pencil-tip of rubber have long been articles that are familiar to every student and to be found in the most poorly equipped school-room. A further use of rubber for the scholar is in the slate-cleaner herewith shown. This is simply a half sphere of molded India-rubber, in the hollow part of which is placed a bit of sponge saturated with water. The rubber keeps the cleaner from moistening anything when not in use, and protects the hand of the scholar from wetting. When not in use the cleaner may be hung by the side of the desk and is always ready for use. Large numbers of them have already been sold for school supplies and the demand promises to increase. Manufactured by the Tower Manufacturing and Novelty Co., New York.



A NEW BICYCLE WHISTLE.

THE bicycle with its rubber tire has ever been a vehicle so noiseless that some kind of warning noise must be made by the rider on occasion to prevent accidents to unwary pedestrians. For this purpose a variety of bicycle horns and bells have been produced, all of which have their advocates. Of them, all perhaps, nothing simpler or more effective has been produced than the whistle shown in the illustration. This when the rubber bulb is compressed emits so shrill and yet so musical a note that it at once attracts attention. It is neat and compact and may be used for a variety of purposes besides a warning to those likely to be run over. Huntsmen say that it is one of the best hunting calls known. It is called the Surprise whistle and is for sale by the John P. Lovell Arms Co., Boston.

THE "LADY DUNLO."



FOR some months past THE INDIA RUBBER WORLD has been publishing cuts of ladies' garments that have attracted most favorable attention, particularly from those to whom graceful effects and excellence in fit most strongly appeal. The same skill that was conspicuous in designing the "Melrose" and "Putnam" is evident in the "Lady Dunlo," here shown. The garment is sleeveless, with an adjustable military cape twenty-eight inches long. In style and fit it is as artistic as any cloak could be, and so carefully has every detail of finish been attended to that the garment may be said to be perfect. The collar is a departure from that of the ordinary mackintosh in that it may be turned quite up to the ears or may be worn with a coquettish half roll that is very fetching. Manufactured by the Clifton Manufacturing Co., Boston.

A NON-COLLAPSIBLE TIRE.

MESSRS. J. D. WIGGINS and H. H. Wilson, of

Toledo, Ohio, have recently been granted a patent on a pneumatic tire, which is constructed on a new and novel principle. It will be shortly put upon the market under the name of the Wiggins & Wilson non-collapsible tire, and it is claimed that it is absolutely puncture-proof. There is, says *Cycling Life*, a wire mesh vulcanized with the canvas and rubber, and it is so arranged that when the wheel passes over the track the wire bedding flexes with the rubber. The wire lays between layers of fabric, and the puncturing of the wheel has no effect upon allowing the air to escape. Mr. Wiggins has been connected with the Gendron Iron Wheel Co. for the past eight years and has great confidence in the ultimate success of the invention.

HARD RUBBER IN CAR-LIGHTING.

THE current that operates an electric car is also used for lighting it in most cases. As a rule the connection between the motor-car and the trailers is made by flexible cords joined by a suitable contact device. A new form of connection made of hard rubber has been brought out which has many advantages. In it the projecting ends are connected with the circuit only when the parts are slipped together, so that it is safe to handle the device in any kind of weather. The contact surfaces are large, and the strong spring with which they are fitted assures a quick make and break. The end of each cord is soldered into an inner tube and a knot in the cord takes the strain off of the joint. Manufactured by George Cutter, Chicago.

MINOR MENTION.

A NEW device for tapping barrels and kegs to prevent splashing has recently been brought out. The inventor has introduced an entirely new principle for tapping in the construction of a peculiar shaped rubber ring which is applied to the kegs or barrels either by inserting the neck of the ring in the barrel and driving the faucet home through the opening of the ring, or the ring may be placed at the end of the faucet with the neck facing the keg and inserting the neck with the faucet in the hole of the keg and driving the faucet home. The neck being held tightly between the faucet and the hole, it thus presents a perfectly air-tight joint; preventing the escape of any gas or liquid. Brewers will appreciate this invention, as much of the damage done to kegs is caused by attempting to prevent leakage and the consequent escape of gas. Manufactured by A. R. Schmidt, Ann Arbor, Mich.

—Hard-rubber drinking cups are now having a large sale among tourists and particularly among those who go to the World's Fair.

—A new material, called rubber velvet, is made by sprinkling powdered felt of any color over rubber cloth while the latter is hot and soft; the result looks like felt cloth, but is elastic waterproof, and exceedingly light.

—Bicycle horns are now made with a short piece of rubber tubing inserted inside the horn. This enlarges and prolongs the sound, and in turn the horn itself can be made smaller.

THE bulky mackintoshes are losing their popularity, says a fashion note, and the ugly, old-fashioned gauze rubber cloaks which can be done up in a little oil-cloth silk bag are sold again.

RUBBER hose with steel armor is now manufactured by Carl Schwanitz, of Berlin, and is stated to do well in severe tests, says the *Gummi-Zeitung*. The hose is twice spirally wound with steel wire. It is stated that the hose can be cut to pieces without loosening the wire armor, the wire becoming tightly embedded in the hose of either heavy or light body. The object of the steel armor is the prevention of collapse and consequent impeding of flow, also the prevention of kinking.

THE waterproof trade abroad is not in a flourishing condition. Reports from Bradford, England, state that the manufacturers are far from busy, and find difficulty in getting detailed specifications for goods ordered early in the season. One dealer objected to taking goods not exactly of the shade ordered, but the courts decided that the refusal was illegal. In Melbourne, Australia, one establishment placards the announcement in its windows that "Trade being bad, we will take almost any price for these rather expensive mackintoshes. Come in, try us; we will surprise you. Mackintoshes and Chesterfields almost given away."

WHAT IS THIS NEW SHOE?

TO THE EDITOR OF THE INDIA RUBBER WORLD: I am anxious to get some one to manufacture a rubber shoe of my invention. I have been to all of the manufacturers in the "trust," but they will not make it, as it interferes with them. Probably you may know of some small firm that would do it for me. Kindly inform me, if you do. Very respectfully, F. L.

New York, August 29, 1893.

[WHAT the invention in the rubber-shoe line can be that interferes with all the large companies we cannot imagine. Nor does it seem possible that to-day, while the policy of the "trust" is for each company in it to preserve its own individuality and push its own goods, that any one of them, on seeing a good thing, should refuse to accept it and use it for all it is worth. Indeed, instead of turning away new ideas of merit, all of the companies are on the lookout for them. Is it not possible therefore, friend F. L., that your estimate of your invention is a false one? Are you not so in love with the "child of your brain" that you fail to see defects that are conspicuous to other eyes?—THE EDITOR.]

RECOVERING RUBBER COMBINED WITH CLOTH.

TO THE EDITOR OF THE INDIA RUBBER WORLD: There has been in the past a great deal said about recovering rubber when it is combined with cloth, but why does not some one invent a process for recovering cloth that is spoiled by having rubber upon it? Is there any such process? In other words, if I have a web of cloth upon which is spread a coating of rubber, and for some reason the rubber is worthless, can it be removed and the cloth used again?

J. A. A.

Lynn, Mass., September 2, 1893.

[SEVERAL processes have been tried to effect the removal of rubber without injuring the cloth, but most of them were not conspicuous successes. A simple method is to plunge the cloth into warm oil, and allow the rubber to decompose. The major part of this oil can afterwards be squeezed out by rolls, and the cloth treated to a scouring process to remove the rest of the oil.—THE EDITOR]

GOLD REQUIRED ON BRAZILIAN DRAFTS.

A REPORT applicable to the present financial situation in this country has been received at the State Department at Washington from Consul-General Loweles, at Rio de Janeiro. It deals with Brazilian drafts on American banks, as follows:

"All the banks in this city during the past month have been rigidly enforcing the rule that all drafts drawn on any bank in the United States shall be made payable in gold coin. As nearly all exports from this country to the United States are paid for by drafts on London, it does not appear on the face that the enforcement of this rule materially affects the gold balance of the United States, but it must be borne in mind that, in a final settlement of these transactions, London will undoubtedly demand payment in like coin for the consignees or purchasers."

BURGLARS IN A RUBBER-STORE.

AN ingenious robbery occurred in the rubber-store of C. J. Bailey & Co., No. 22 Boylston street, Boston, a few nights ago. There was nothing in the appearance of the store when the salesman arrived in the morning to indicate that burglars had visited it during the night. But when a box was taken

down from a shelf to supply a customer who called early in the day, it was found empty when it should have contained a mackintosh. As box after box was taken from the shelves, and each was found empty, it dawned upon the clerks that there must be something wrong, and investigation showed that about seventy-five mackintoshes had been taken, their value ranging from \$8 to \$20 each. The receptacles for the goods were returned to their places by the thieves as neat as they had found them. An entrance to the store had been gained by putting a boy through the open transom over the door, and he opened a side window leading to a private alley, through which his confederates obtained access to the store. No attempt had been made to open the cash-drawer.

GRAPHITE AT THE WORLD'S FAIR.

THE Joseph Dixon Crucible Co. (Jersey City, N. J.) are the only concern in the world manufacturing every article of which graphite is a component part. With the invention by Joseph Dixon in 1827 of the Plumbago Crucible, the crucible business was revolutionized. At that date began also the manufacture of Dixon's stove-polish, foundry facings, and the development of an industry now grown to enormous proportions and fittingly represented by the Joseph Dixon Crucible Co. The company have two exhibits at the World's Fair. One is of Dixon's American graphite pencils, in the northeast gallery of the Manufactures building, and the other, covering all the other articles manufactured by them, in the northeast gallery of the Mines and Mining building. The pencil exhibit occupies a space 10 x 14 feet. In the center of this space stands a low mahogany table surmounted by a pyramid of velvet which is covered with pencils arranged in graceful and beautiful designs by an artist employed specially for that purpose. Over this pyramid stands a rosewood and plate-glass case. Two ornamental façades of turned and carved mahogany front the space, which it is separated from neighboring spaces by means of Japanese bead curtains, suspended from carved grills. The space is lighted at night by means of two gilt electroliers of six 16-candle-power lights each.

The company's exhibit of general and special graphite products in the Mines and Mining building occupies a space 25 x 28 feet. A very handsome cherry façade fronts the space, while the sides are hung with tastefully-arranged portieres. Crucibles, retorts, ladles, stopper-heads, and nozzles, graphite boxes, phosphorus chargers, resistance rod and devices, incandescent filament forms and other special goods made of graphite, are shown in upright cabinets. In another case is shown the developments of an electrotyping plate, in which process the use of graphite is an essential. In still another case are shown over fifty varieties of graphite, for as many different uses and under as many different names, such as graphite for lubricating stove-polish, foundry facings for green, dry, or loam castings; core wash, ingot mold wash, shot and powder glazing, electrotypers, gilders' use, hatters' use, rubber packings, piano and organ actions, "potleading" yachts, for crucibles, lead pencils, paint pigment, lubricants, etc.

There are also shown samples of graphite from all the principal sources from which that article is obtained. One very fine sample from Ceylon weighs nearly 300 pounds. Comfortable chairs, with writing desk and stationery for the free use of those who may desire it, give to the exhibit an air of genial comfort and ease.

JOHN FRANKLIN DODGE, who died at South Lincoln, Mass., on August 23, was engaged in the rubber business in Boston between 1882 and 1887.

TRADE AND PERSONAL NOTES.

A LARGE manufacturer of mechanical goods says: "Trade is remarkably strong, considering the conditions. One reason that the rubber-men have stood the pinch so well is because collections have been far better for them than in other lines. For a few years past this trade has been seeking smaller customers. Now it is the little fellow who can pay his bill, while the big concern cannot, and the result is that the rubber-manufacturers have money in hand to do business with. Then too they are all financially strong and have large assets. Our own business for the last three months is 20 per cent. larger than it was last year for the same months, and that too in spite of the fact that we have not had a salesman out for the last four weeks. As a matter of fact it helps the mechanical-goods trades for other industries to close their mills, and for this reason: Once closed down they begin to repair, and for their repairs they need belts, hose, gaskets, etc."

—The Westinghouse Air Brake Co. have curtailed the hours of work at one of their main factories from nine hours six days in the week to eight hours four days in the week. As the company stand ready to furnish 1000 sets of their equipment at an hour's notice, the necessarily limited demand of the railroads at the moment can always be met.

—The affairs of the Omaha Rubber Co. are still in the hands of the sheriff, who has sold the stock of goods and is now collecting the book accounts. All the proceeds are being paid into court for the benefit of the creditors.

—It is reported that an elastic-webbing factory is to be erected at Spring City, Pa.

—The United States board of general appraisers have sustained the protest of Carson, Pirie, Scott & Co. (Chicago), that certain mackintosh gloves were not dutiable at 49½ per cent. as wool. The appellants claimed that they were dutiable at 30 per cent. as rubber. This decision has given a new impetus to the importation of these goods in Chicago.

—John Stevenson & Co. (Duluth, Minn.) have opened a wholesale warehouse in London for the sale of American goods, and will build up a trade with India, Australia, Africa, and New Zealand. The firm have a large acquaintance with London shipping merchants, and will devote their attention to mechanical lines.

—The United States Talc Co. are putting in two large crushers and eight mammoth cylinders to their works at Gouverneur, N. Y. The cylinders weigh 11,400 pounds each.

—A force of workmen have been busy lately repainting the factory of the Hickory Wheel Co. (lately the Pará Rubber Shoe Co.) at South Framingham, Mass.

—The Phillips Insulated Wire Co. (Providence, R. I.) have commenced the erection of a large plant at Darlington.

—The tax-rate of Framingham, Mass., has been increased from \$15 to \$18 per \$1000, on account of the depreciation in the taxable value of property. One heavy item of decrease has been in the value of the Pará rubber-shoe plant and its stocks held by residents of Framingham.

—Plans have been filed in the building department of New York city, by the Bishop Gutta-percha Co., for alterations to the three-story brick factory at Nos. 420-426 East Twenty-fifth street, to cost \$5000.

—The Boston Belting Co. have just made a large rubber driving belt for the Linden Paper Co., of Holyoke, Mass. It is 70 inches wide, eight piles, 95½ feet in length, and weighs about 2000 pounds. This is one of the widest rubber belts ever made in this country.

—It is stated that the United States Rubber Co. are considering the erection, at Millville, Mass., of a large mill for the manufacture of a certain width of cotton cloth used by them. The dye-house of the Lawrence felting-works is receiving an addition of 25 feet, which will make the building 40x100 feet. A new 150-horse-power Harris-Corliss compound engine has been placed in the vulcanizing-works of the Woonsocket mill at Millville.

—H. A. Middleton, formerly with the Combination Roll and Rubber Co. (Bloomfield, N. J.), has accepted a position as assistant superintendent with the Home Rubber Company, of Trenton, N. J.

—Fred. W. Morgan and Rufus Wright have begun proceedings in the United States Circuit Court at Cleveland, Ohio, against the B. F. Goodrich Co., of Akron, to enjoin them from manufacturing and disposing of a certain improvement on pneumatic rubber tires on which the plaintiffs claim to have letters patent. The petition also asks that the Goodrich Co. be compelled to pay to the complainants all gains and profits accruing from the sale of the patent improvement.

—An extensive fire in San Francisco on August 20 damaged the stock of rubber goods belonging to Buckingham & Hecht, to the extent of \$20,000, according to the local newspapers.

—The Gleason & Bailey Manufacturing Co. (Seneca Falls, N. Y.) are building a handsome little truck of steel for the volunteer fire company of Cranford, N. J. They have a contract for making an expensive full nickel-plated parade hose-carriage for the Schell Hose Co., of Rhinebeck, N. Y. The town of Croton Falls, N. Y., has purchased one of the Gleason & Bailey patented steel two-horse hose-carriages. An order has been received for the building of a hose-carriage for Empire Engine Co. No. 1, of Westchester, N. C.

—The Wirt & Knox Manufacturing Co. (Independence, Mo.) have received through the Day Rubber Co., of St. Louis, an order for eighty of their new-pattern steel-wheeled hose-carts, for government use at the various forts throughout the west, they having been thoroughly tested by the War Department at Washington.

—The plant of the Apsley Rubber Co. (Hudson, Mass.) has been extended by the addition of a new English double-texture coating-machine. A new spreader has been put in the old coating-room, and another grinder added to the mixing-room. The entire plant of the company is receiving a new coat of paint.

—The Baltimore fire department have recently awarded, through their commissioners, the following contracts for fire hose: 4400 feet Unique brand cotton, at 90 cents per foot net, to the Patapsco Rubber Co. (Baltimore); 4000 feet of American Jacket at 69 cents, to the Baltimore agency of a prominent Boston firm, and 1000 feet of Maltese Cross rubber hose, at \$1 per foot, to Messrs. Morton, Reed & Co. (Baltimore), who represented the Gutta Percha and Rubber Manufacturing Co. The Patapsco Rubber Co. are the selling agents for Maryland for the New York Belting and Packing Co., and the hose of this company has long enjoyed a high reputation, as has also that of the Gutta Percha and Rubber Manufacturing Co. with the fire department of the Monumental city.

—The growth of the business of the Brown & Sharpe Manufacturing Co. (Providence, R. I.) is well illustrated by the tabulated list of the number of men employed, which is so significant that it is here reproduced: 1857—20; 1872—250; 1880—350; 1884—450; 1886—600; 1888—800; 1893—1000.

—The Williams Rubber Co. (New York), who recently started the manufacture of mackintoshes, have out some very handsome designs, and one of their low-priced ladies' garments, in solid colors, is said by connoisseurs to be the best production on the market, at the price. This company are also very busy manufacturing their specialties in bathing-caps, for which they have several exclusive patterns. Their factory is working full, and they are behind their orders.

—A license for the incorporation of the Superior Rubber Type Co., at Chicago, has been granted to Louis K. Scotford, William L. Reed, and A. L. Edgerton, the capital to be \$10,000.

—It is said that the membranous pouch of the pelican makes a leather so fine, soft, and waterproof that it discounts rubber as a material for tobacco-pouches.

—H. E. Sawyer, who until recently was assistant superintendent of the Boston Rubber Shoe Co., has been put in charge of the sales of that great corporation, in place of Judson Williams, who has resigned.

—The general offices of the Boston Rubber Shoe Co., on Causeway street, Boston, have been greatly enlarged and completely re-arranged. The offices of the manager, assistant manager, and assistant treasurer now adjoin, with connecting doors. One feature of the new arrangement is a neatly-furnished customers' room, where buyers may receive their mail and answer their letters undisturbed.

—THE INDIA RUBBER WORLD has received by post a unique advertising card in the center of which appears a picture thus described in print below: "Ye picture as showne giveth ye correcte likenesse of ye factorie (including ye new parte lately added thereto) wherein are mayde ye regulators of worlde wide celebritie yclept Mason. It is situate in ye confines of ye citie of Boston, called Dorchester, and ye affairs pertaining thereto are conducted in ye citie of Boston, at the signe of 10 Central St."

—Once in a while a vessel comes into the port of New York from Pará without rubber as a part of her cargo. Just now it is because of the light freights to this country from all parts of the world. The brig *Arcadia* came in one day last month from that port loaded with huge logs of hardwood.

—There is a colony of Armenians at Woonsocket, R. I., employed in the rubber-mills there.

—In times like these, when so many manufacturing concerns are complaining of hard times and lack of orders, it is encouraging to find that there is occasionally one which is running full time and has plenty of orders. The Berlin Iron Bridge Co. (East Berlin, Conn.) are full of orders and are running their entire plant full time and portions of their work overtime. They have contracts for a large amount of work including a new electric light and power station at Lynn, Mass.; a draw-bridge at Salem, Mass.; a new foundry building for the New Home Sewing Machine Co., at Orange, Mass.; an iron building to go to Tampa, Fla.; a large bridge for Chester County, Pa.; a new iron storehouse for the New York Knife Co., at Walden, N. Y.; a large power plant for the Philadelphia Traction Co.; a large cotton shed for the Southern Pacific Railroad Co., at New Orleans, La.; a new roof for the purifier-house of the Northern Liberties Gas Co., at Philadelphia; a new power-house for the Reading (Pa.) Traction Co.; a new power-house for the State Street Horse Railway Co., at New Haven, Conn.; a car-barn for the Easton Transit Co., at Easton, Pa.; and a large smelter building for the Anaconda (Mont.) Smelting Co. Besides these they have numerous small jobs scattered throughout the country which will employ their entire plant until after January 1. The company seem to be particularly fortunate in securing work like this at this time.

—The sheriff of the county of New York recently received an attachment against Baron H. Arnous de Rivière, of France, in favor of Herman F. Albright and James A. Deuther, on claims for services in connection with mining in Bolivia. The amounts aggregated \$6973. Baron de Rivière being absent in Bolivia, the sheriff levied upon his stock in the Beni Gum Co., in the hands of Messrs. Earle Brothers, of New York.

—It is not known that any especial demand exists for fire-proof blotting-paper for use on the desks of business men, but such an article is in the market, nevertheless. It is made of asbestos and comes from Louis Wertheim, Frankfort o/M., Germany, and is one of the many novelties embraced in his exhibit at the World's Fair. One advantage suggested by the use of specimens of the asbestos blotters sent to THE INDIA RUBBER WORLD office is that they are less liable to break than the paper-card blotters; besides, by retaining their absorbent qualities longer, they require renewal less frequently.

—A Maine shoe-manufacturer has invented a machine that prepares leather soles so that they are as flexible as a rubber sole. He expects to drive the rubber sole out of the field, so far as bicycle-shoes are concerned.

—Extensive repairs are being made about the plant of the Butler Hard Rubber Co., at Deckertown, N. J.

—The warerooms of the Woonsocket Rubber Co., in Reade street, New York, are advertised for rent, as the offices of this company are to be combined with those of the United States Rubber Co., on the same street.

—"Hall's Rubber Goods" is a sign that will seem most familiar on Summer Street, Boston, and will have special significance over the new rubber store started by Harry B. Hall. The proprietor of the store is the son of the original Hall of rubber-goods fame, and has been in the business all his life. He will carry a full line of rubber goods, and as a specialty will make mackintoshes to order. The store is at Nos. 109-113 Summer Street.

—The deed transferring the Pará Rubber Shoe plant (South Framingham, Mass.) from the United States Rubber Co. to the Hickory Wheel Co. was dated July 1. The rubber company are taking out their big calenders and other rubber-working machinery. A number of former employes are now at work in the rubber-shoe factory at Franklin, Mass.

RUBBER SALESMEN.

M. L. ROSSITER is on his regular fall trip through the many towns of the Keystone State for Messrs. R. Levick's Son & Co., one of the oldest and the largest of Philadelphia rubber companies.

—Buyers from out of town, now in New York, say they have never before been so persistently drummed by rubber salesmen as now. This is no doubt true, as the road representatives of the New York houses are mostly home, still waiting for better times, but by the middle of this month the majority will be on the road.

—Guy F. Proctor, of the Boston Rubber Co., greatly enjoyed his vacation, which he put in to good advantage at the Fair, in the company of E. R. Burley, his company's Chicago agent.

—James D. Ferguson, looking as brown as a berry, is at home from the seaside and getting ready for a trip west. His glove shoes were never so popular as they are now, and Mr. Ferguson understands putting them among parties that will continue to want them year after year.

—J. Macwatty has resigned from the Commonwealth Rubber Co. to accept position as manager of the sales department of the Eastern Rubber Manufacturing Co. (Trenton, N. J.) for the city of New York.

—F. B. Hoff is being congratulated by his friends on being a father. Mr. Hoff has for a long time been with R. Levick's Son & Co., Philadelphia.

—George C. Terwillinger is working Montana for the Stephen Ballard Rubber Co. (New York).

—During a conversation between two well-known sellers of mackintoshes, one from Boston and the other from Baltimore, as to the oft-repeated question, "Has the mackintosh come to stay in America?" a gentleman clad in a new box-style mackintosh of very handsome appearance entered the lobby of an up-town hotel on Broadway. "Hello," remarked the Baltimore man to his fellow salesman, "the dogdays must be over, for there is a man with a mackintosh on." "What a sight for sore eyes," said the Boston man; "I will wager the cigars I can name the maker." "So can I." "Who then?" "Hodgman." "No bet," remarked the mind reader from the Hub, "that was my guess." The owner of the mackintosh was then politely asked to show the label, which showed both guessers to have been right.

—Lewis Miller and Charles Weyforth, of Boyd Jones & Co.'s forces, are in New York looking after visiting buyers.

TRADE PUBLICATIONS.

THE rubber trade has become accustomed to expect from the B. F. Goodrich & Co. (Akron, Ohio) the most original advertising matter to be met in the rubber business. The pamphlet just issued by them labeled, on the outside "Diary of a Druggist," is certain to be opened by every recipient, and the amusing entries inside recording the daily history of a druggist's trade will be read from first to last. There are few references in the "Diary" to rubber goods, though the cuts of articles in rubber for druggists' trade may give some suggestion of the object of the pamphlet. It is only when the last page is reached that the business card of the B. F. Goodrich Co. appears, with an enumeration of the large number and variety of soft rubber goods made by this company.

—The Lawrence (Mass.) Rubber Co. send out an illustrated circular of the goods they keep in stock, in four-page form, almost large enough for a newspaper. The store was established September 1, 1886, under the proprietorship of J. Francis Hayward, of Boston, and is managed by Isaac Crocker, who has had years of experience in the rubber business. The circular mentioned will indicate that there is nothing included in a first-class stock of rubber goods which the company are not prepared to supply. They manufacture fine mackintosh clothing and rubber clothing of all kinds, with factories at Jamaica Plain, Mass.

—The Woonsocket Rubber Co. have issued a neat pocket catalogue of their goods, containing 42 pages and bound in leather. By skillful grouping each sort of shoe is pictured in this small space and room is found for three full-page illustrations of the three factories of the company. Several other pages are devoted to prices. The work is thorough and complete and from the fact that it can be carried in the vest-pocket must prove very convenient to the salesmen and others who are "on the go."

—The Gleason & Bailey Manufacturing Co., Limited, Nos. 181-198 Mercer street, New York city, with factories at Seneca Falls, N. Y., issue "A Complete Price-List of Iron and Brass Pumps," this being their Catalogue No. 55. The firm have enjoyed a prosperous existence of more than half a century and their output embraces a wide variety of styles. Their specialties are appliances for fire-departments, and their orders range from the smallest towns that have enterprise enough to pay for fire-protection to the fire-department of New York city.

—The new catalogue of the Standard Rubber Corporation (Brockton, Mass.) has nothing elaborate or pretentious about it, but some of their customers pronounce it the most complete rubber-clothing catalogue that they have seen. The object of the compiler has been, evidently, to go pretty thoroughly into the facts pertaining to rubber clothing, and give dealers a chance to know just how their goods are put up, and what to expect when ordering. Following each cut illustrating styles a few lines of type appear, giving such points in relation to the shapes described as may be needed to supplement the engraving.

—Roberts Brothers, manufacturers of "Shell Brand" rubber clothing, leather jackets, and umbrellas, Nos. 71-77 Market street, Chicago, announce the opening of their fall season in an illustrated catalogue of their goods. They make a specialty of A. J. Tower's fish-brand slickers. The catalogue has an attractively lithographed cover.

—The Rhode Island Coupling and Rubber Co. (Providence) have issued a neat new catalogue of mechanical rubber goods and fire-department supplies.

INDIVIDUAL MENTION.

MR. WALTER S. BALLOU, of the Woonsocket Rubber Co., is a member of the Adirondack Fish and Game League and this spring spent some time fishing there. It is a question if Mr. Ballou is not better posted on good fishing places in New England, particularly in the vicinity of Rhode Island, than any other rubber-man.

—Mr. George Watkinson, president of the Colchester Rubber Co., is not an enthusiastic fisherman, but he takes great interest in the sport of other fishermen, particularly William Lincoln Sage, whom he assists in every way imaginable when Mr. Sage comes in his vicinity on a fishing trip. A single example of this assistance might well be cited here. Sage was going to fish in a certain brook and on reaching it found it placarded from one end to the other "No fishing allowed," and being a law-abiding citizen returned home, only to learn that the signs were put up by Mr. Watkinson. As the two are close friends this assistance did not result in bloodshed.

—Mr. C. Edward Murray, of the Crescent Insulated Wire Co. (Trenton, N. J.), usually spends some time in the summer months at Barnegat, blue fishing.

—Mr. E. H. Paine, of the American Rubber Co., does more fishing in the west than in the east and has caught some fine strings of grayling from the lake.

—Mr. John H. Flint, treasurer of the Tyer Rubber Co., is very fond of salt water fishing and has the patience of Job, coupled with an unusual amount of fish lore and fish luck.

—Mr. Whitmore, of the Boston Belting Co., usually takes a run up in Maine the first of August, and while there fishes for brook trout, or, if within reach of bass-ponds, tries bass fishing.

—Theodore Studley (New York) spent his summer vacation in the Adirondacks, at Stamford City.

—C. H. Dale, sales-agent of the Peerless Rubber Manufacturing Co. (New York) was presented with a handsome gold watch by the Conductors' Association of New York. Mr. Dale was the retiring chief conductor.

—Mr. Ratcliffe Hicks, President of the Canfield Rubber Co. and a member of the present Connecticut legislature, is talked of as the probable Democratic nominee for the third Congress district of that State at the next election.

—Mr. George H. Hood and wife (Boston Rubber Co.) went on a coaching trip this summer through Great Britain.

—Mr. Wheeler Cable, of the Cable Rubber Co. (Boston), has been elected Sovereign Grand Commander for America of Scottish Rite Masonry.

—At a recent fair held in Jersey City, N. J., the wife of a prominent rubber-man asked him what he would contribute. He laughingly told her he would exhibit rubber goods and give a lecture on their uses. To his surprise when the time came for the fair, she held him to his promise, and as he is a man of his word he at once began work. He fitted out a fine exhibit of rubber in its various forms, vulcanized and unvulcanized, the various adulterants that are used in the compounds and had them arranged in a manner that was artistic and attracted the attention of inquirers. During the night that the fair was in session he occupied with his son a raised platform in the center of the exhibit, giving a gossip account of the details of the manufacture enlivened with various anecdotes, the result being that the rubber exhibit was one of the most profitable features of the fair. The gentleman who so successfully turned this business into a means of information and entertainment was Mr. J. J. Voorhees, treasurer of the New Jersey Car Spring and Rubber Co.

—Mr. H. F. Taintor has been testing the bass-fishing at Lake Champlain and also at various smaller lakes near the Maine line. He has had excellent luck, and finds his general health much improved by his outing.

—The appointment of Mr. Thomas L. Thompson, of California, to be United States minister to Brazil, has been confirmed by the United States Senate.

—Mr. Joseph Banigan, president of the United States Rubber Co. and Col. Samuel P. Colt, of the National India Rubber Co., were passengers on the *New York*, which arrived in New York on August 26. A party of rubber-men and business men, invited by Charles R. Flint, met Mr. Banigan down the bay, having procured Mr. Flint's yacht for that purpose.

—George E. Austen, of the Imperial Rubber Co., has returned from a short trip to London.

—Mr. William Keyes, of the firm of Prescott Brothers (Boston), is in the Adirondacks for a two weeks' outing.

—Mr. Fred Hall Jones, of the Tyer Rubber Co., is putting in his vacation doing the World's Fair.

—At the handsome flower-show of the Massachusetts Horticultural Society held lately in Boston, flowers from the hot-houses of E. S. Converse were awarded prizes.

—Chester J. Pike, selling-agent of the Wales-Goodyear Shoe Co., is off for Castle Harmony, Maine, for ten days, shooting. Temple R. Fay, Judge Hayes, and other prominent Bostonians are of the party, all prepared to enjoy the hospitality of the well known "Wild Goose Club."

—Mr. Emmet A. Saunders, general superintendent of the United States Rubber Co., is at the World's Fair.

—J. H. Parker, manager for C. S. Knowles (Boston), has been a month in Chicago doing the Fair, and keeping business humming in his own line.

—G. B. Widner, of the American Rubber Co., started on September 5 for a four weeks' trip through the western part of Pennsylvania.

—The Commonwealth Rubber Co. (New York) report a fair business and have ten men out on the road. Their men handle coördinate lines, and in this way there is a great advantage to merchants who do not care to go to the full expense of special trips for a single line. The Commonwealth people have made a success of this plan, and are constantly adding to their capacities in this direction, the demand for which is growing.

—A walk through the boot-and-shoe district in New York disclosed a very busy state of affairs. Both sides of the streets are lined with express wagons, and the sidewalks are impassable because of the great number of cases awaiting shipment. This has been the case since September 1.

—The India Rubber Glove Co. will start up its new plant at Naugatuck as soon as the mechanics are out of it. The sudden demand for goods has caused haste in this direction.

—It is stated on the authority of the *Providence News* that the Goodyear Rubber Co. will relinquish the selling agency of the National India Rubber Co. (Bristol, R. I.) Inquiries made of the officials of the former company met with a denial of the report, and surprise was evinced that such a statement should have been made. The National India Rubber Co. belong to the United States Rubber Co., but the officers of the Goodyear Rubber Co. are large owners of stock in all three companies.

—At the annual meeting of the stockholders of the Rhode Island Coupling and Rubber Co., at Providence, on August 15th, Pardon S. Remington was elected president and manager; Roswell O. Whitney, vice-president; and William H. Richmond, secretary and treasurer. The business heretofore carried on in fire-department supplies and mechanical rubber goods will be continued.

—Cuyler & Mohler have opened a supply store at No. 2206 Boston street, Baltimore, Md., and announce their intention of catering to the wants of the mill and machinists' trade. Mr. Cuyler has an extended acquaintance throughout the south, where he has traveled for the past ten years as representative for some of the largest manufacturers. Mr. Mohler has, up to a late date, represented the Magnolia Anti-Friction Metal Co.

—The Eastern Rubber Manufacturing Co. (Trenton, N. J.) have entered the bicycle-tire trade, making six different styles of tires, and will make a strong bid for the 1894 trade.

—One of the big rubber companies did what it could to lessen the weight of depression in business circles during the past month by enclosing in the correspondence of the office a neatly-printed slip containing the following cheerful suggestions:

"NEVER SAY DIE."

The Country is all right. The Farmer is all right. Our crops are fairly good this year, while the crops in other parts of the world are poor. Europe wants some of all our crops, even hay, and must take them and send us money for them. We shall receive a great deal of money from Europe this fall. In the meantime don't get scared. Business will revive, and if you keep in the swim you will get your share of it. Be patient; don't croak; go right along conservatively, but with due enterprise, and you will come out ahead, and have a reasonably good year after all.

COLCHESTER RUBBER CO.

August 16, 1893.

—Among the earliest exhibits to be put in order at the World's Fair was that of the Bridgeport Elastic Web Co. Beginning with a display of rubber plants, there is shown in regular order crude rubber, rubber after washing, the rubber strands for the warp, cotton, wool, and silk thread, and so on through the various processes to the goring complete. The numerous shades of colors and textures supplemented by its application for Congress shoes.

—The Mattson Rubber Co. (New York) are improving their plant. Two large rolls have been added to their calender outfit. It is now understood that there will be no widening of College place for some time to come, and thus the company will not be disturbed. There is an excellent demand for the "Pearl" Corset-Shield as also for all grades of dental rubber. On the other hand the dress-shield has only an indifferent sale at home, the season being over.

—The Dickinson Hard Rubber Co. (Springfield, Mass.) had not, at last accounts, filled the vacancy caused by the recent death of their superintendent, Frank Marquard.

RETURN OF DR. AYERS FROM PARÁ.

THE office of THE INDIA RUBBER WORLD was favored, early in the month, with a call from Dr. James M. Ayers, who has just arrived from Pará. After a day among friends in New York he went to Washington, to report to the government the formal surrender of the Pará consulate to his successor, going thence to his home in Cincinnati. Dr. Ayers found Pará a desirable place of residence so far as climate and healthfulness are concerned. Only the United States and Portugal maintain full-fledged consuls there, other countries being represented by vice-consuls or commercial agents, who have the privilege of engaging in trade.

Dr. Ayers regards it as a matter for regret that the once projected railway around the Madeira falls—which is referred to more fully in another part of this journal—should not again appeal to the interest of capitalists, so as to lead to its completion. This would open the way to an extended commerce with the head-waters of this great rubber-producing river. At present no active work is being done on the proposed telegraph

line along the Amazon, between Manáos and Pará. The government at Rio had made some valuable concessions to the construction company, and the work of planting steel poles had proceeded from Pará as far as Obidos (some 400 miles), when the work was checked by a heavy defalcation by a trusted subordinate of the company. A good deal of French capital is believed to be back of the enterprise, and Dr. Ayers thinks that work will soon be resumed.

As has so often been pointed out in THE INDIA RUBBER WORLD, the establishment of telegraphic communication between Manáos and the outside world would shift the center of the rubber-exporting business nearer to the areas of production, which means that Manáos would become a formidable rival of Pará. From what Dr. Ayers has learned of the rubber situation, he is convinced that the Indians on the upper Amazon and its tributaries are beginning to appreciate the importance of conserving the rubber forests, and that they will become better—because less wasteful—rubber-collectors than the imported laborers from Ceará. He reports indications, also, of an increasing interest in rubber cultivation in Brazil.

REVIEW OF THE RUBBER MARKET.

DURING the past thirty days the rubber market has passed through two stages,—one of stagnation, and another of recovery. In this it has followed the markets of every other product, the paralysis being consequent upon the anxiety as to the fate of the silver repeal bill, to which nine persons out of ten look for relief from our present troubles. Upon the handsome majority in the House of Representatives being announced, all markets seemed to spring into life, and activity ensued. Still the buying is largely of a retail character, the manufacturer feeling his way back with a purchase of two tons where it was ten before. The arrivals are light comparatively, and much rubber has been exported to Europe from New York for two purposes: because the foreigner is making goods while we are nursing our wounds, and because the crude-rubber is more easily taken care of abroad. These two factors working in conjunction have made light stocks in this country, and should a sudden demand spring up for crude rubber, there might be a sharp advance. It is understood that there is very little rubber in first hands in Pará, and not much on the way, if any. The interruption of telegraphic communication with Brazil leaves every one in the dark as to what may occur. Had there been any chance for a speculation rubber would be bounding upward at the moment. No one now speculates even on a sure thing, and so prices remain simply steady.

The world's visible supply of Pará rubber on August 31, 1893, compared with a date one month before, and one year before, was as follows, amounts being stated in tons:

| | August 31, 1892. | July 31, 1893. | August 31, 1893. |
|--------------------|------------------|----------------|------------------|
| United States..... | 642 | 846 | 792 |
| England..... | 582 | 622 | 594 |
| Pará..... | 420 | 450 | 600 |
| Afloat..... | 480 | 435 | 473 |
| Total..... | 2124 | 2353 | 2259 |

The statistical position of Pará rubber in New York is thus reported for August, 1893, as compared with the same month in preceding years:

| | | |
|------------------------------|-------|-------------------|
| Stock of Pará here, July 31, | about | 1,875,000 pounds. |
| Receipts August | " | 860,000 pounds. |
| Deliveries August | " | 1,110,000 pounds. |
| Stock August 31, 1893, | " | 1,625,000 pounds. |
| Stock August 31, 1892, | " | 1,315,000 pounds. |
| Stock August 31, 1891, | " | 2,780,000 pounds. |

PRICES FOR AUGUST.

| | 1893. | | 1892. | | 1891. | |
|--------------|-------|---------|-------|---------|-------|---------|
| | Fine. | Coarse. | Fine. | Coarse. | Fine. | Coarse. |
| First..... | 66 | 43 | 65 | 43 | 79 | 51 |
| Highest..... | 66 | 43 | 65 | 43 | 79 | 51 |
| Lowest..... | 65 | 41 | 63 | 41 | 61 | 40 |
| Last..... | 66 | 42 | 63 | 42 | 62 | 41 |

[Of the above deliveries for the month, about 400,000 pounds were exported to Europe.]

The latest quotations in the New York market are:

| | | | |
|---------------------------|-------|-------------------------------------|-------|
| Pará, fine, new..... | 66@69 | Benguela..... | 45@46 |
| Pará, fine, old..... | 71@73 | Kongo Ball..... | 36@42 |
| Pará, coarse, new..... | 43@51 | Small Ball..... | 33@36 |
| Pará, coarse, old..... | 46@53 | Flake, Lump and Ord. . . | 26@28 |
| Caucho (Peruvian) strip.. | 44@45 | Accra Flake..... | 18@19 |
| Caucho (Peruvian) ball.. | 49@50 | Mozambique, red ball.... | — |
| Mangabeira, sheet..... | 35@38 | Mozambique, white ball.. | — |
| Esmeralda, sausage.... | 45@46 | Madagascar, pinky..... | 54@56 |
| Guayaquil, strip..... | 32@35 | Madagascar, black..... | 38@42 |
| Nicaragua, scrap..... | 42@44 | Borneo..... | 26@42 |
| Nicaragua, sheet..... | 40@41 | Gutta-percha, fine grade.. | 1.30 |
| Thimbles..... | 37@38 | Gutta percha, medium.... | 1.00 |
| Tongues..... | 33@36 | Gutta-percha, hard white. | .85 |
| Sierra Leone..... | 25@40 | Gutta-percha, lower sorts, nominal. | — |

A New York broker speaks of the market on the 12th as follows: "The market is strong. The demand from home trade has been good and is improving every day. All the factories are starting up and outlook for business all along the line is good. Coarse is very scarce and wanted and sellers having in view last year's experiences are not willing to go short of the market to any great extent even at what seems attractive prices compared with other grades. The political disturbances in Brazil lead to extreme caution on the part of sellers. Cable communication with Pará has been cut off since the 6th instant. Europe has been taking any spot Pará's and Centrals we had to offer at fair prices and exports of Pará's from this port for the first ten days of the month foot up 215,000 pounds."

In regard to the financial situation, Messrs. Simpson & Beers, brokers in crude India-rubber and commercial paper, New York, advise us as follows:

"City banks are still unprepared to buy outside paper, and probably will not enter the market to any great extent until after the \$38,000,000 of Clearing House certificates are redeemed. Necessarily the outlet for notes are very limited, only an occasional sale having been made at 12 per cent. or over.

Twelve per cent. appears to be the minimum rate for endorsed receivables; at this quite a business was done in the last month in Boston."

THE RUBBER-GOODS TRADE.

DURING August, it can be safely said, there was no business in manufactured rubber goods, or in anything else that was not an absolute necessity of life. The paralysis was caused by the great scarcity of currency, manufacturers could not sell goods and get paid for them, and also could not get money from the banks for pay-rolls. Until within a very few days a New York merchant receiving a check on a Philadelphia local bank was compelled to resort to all sorts of methods to get it cashed, for the New York bank would not take it for collection. Time money has also been almost unobtainable, and in fact every impediment possible seemed to have thrust itself in the way of manufacturing or selling goods. Upon the passage by the House of the silver repeal bill, a better feeling was at once noticeable and the amount of transactions seemed to grow from day to day. There is a great variance in opinion as to whether the silver bill has much to do with the present depression, and every one is disposed to act very conservatively, and not unwisely overbuy. The point is made that stocks of every description are very low at every point between the raw material and consumption, and that the rubber season is now here with no goods to supply it. A great many predict a rubber goods famine.

The demand for boots and shoes is growing very rapidly, and has impelled manufacturers to immediately start up their mills, and for a time at least the rubber shoe factory will be busy as a bee everywhere. At the moment orders are far ahead of capacity. The demand is an even one for all descriptions, there being no special variation. In clothing some manufacturers report a good demand, and others say it is very indifferent. At the moment the factories are either idle or on short time. Stocks are low, and any demand that should spring up, if it assumed any proportion, would be met with difficulty.

There is no attempt to bring out new styles, and prices are not extravagantly high. Some of the department stores have been advertising cut prices.

In mechanical goods the business is not yet good. Some of the mills that have closed down are making repairs that need small supplies of packing or a new belt, and a little business is being done in that direction. On the other hand, mills that have closed down indefinitely are neglecting repairs altogether, and little demand is expected from them for the present. The season for small hose is over, and while fire hose has been sold in good quantities there cannot be much expected in the future until municipalities are in better shape. The fruit season has been a good one, and jar rings have sold well. Some of the factories are at work on specialties and doing nothing else. In bicycle business there is a fair demand. The great drawback to the mechanical goods business is the depressed condition of railway finance, the roads not buying fifty per cent. of what is usual with them at this season of the year. A great deal will depend in the future upon their recuperation; but little is expected at the moment in that line. Some of the dealers report a good demand for billiard cushions.

Business in hard-rubber goods has been poor, but is picking up with an uncertainty as to the immediate future. In specialties, soft rubber goods business is only fair. The holiday trade is now approaching and but little preparation has been made for it. There is not the usual demand for dress shields.

THE TRADING IN RUBBER STOCKS.

THE quotations which follow represent the daily transactions

in Rubber stocks on the New York Stock Exchange for each business day since the last report printed in this journal:

| DATES. | COMMON. | | | PREFERRED. | | |
|------------------|---------|------------------|------------------|------------|------------------|------------------|
| | Shares. | High. | Low. | Shares. | High. | Low. |
| August 11..... | .... | .... | .... | 135 | 64 | 62 $\frac{3}{4}$ |
| August 12..... | .... | .... | .... | 150 | 60 | 60 |
| August 14..... | 360 | 19 | 18 | 67 | 60 | 59 $\frac{7}{8}$ |
| August 15..... | .... | .... | .... | .... | .... | .... |
| August 16..... | 125 | 18 | 18 | .... | .... | .... |
| August 17..... | 100 | 17 | 17 | 120 | 55 | 55 |
| August 18..... | .... | .... | .... | 50 | 50 | 50 |
| August 19..... | .... | .... | .... | 115 | 51 | 50 |
| August 21..... | .... | .... | .... | 65 | 52 | 51 |
| August 22..... | 260 | 20 $\frac{1}{4}$ | 18 $\frac{1}{4}$ | 20 | 53 | 53 |
| August 23..... | 35 | 20 | 20 | .... | .... | .... |
| August 24..... | .... | .... | .... | 200 | 57 | 56 |
| August 25..... | 250 | 20 | 19 $\frac{3}{4}$ | 70 | 59 | 59 |
| August 26..... | 50 | 20 | 20 | 140 | 56 | 56 |
| August 28..... | 300 | 22 | 20 $\frac{3}{4}$ | 130 | 59 | 59 |
| August 29..... | 100 | 25 | 25 | 5 | 65 | 65 |
| August 30..... | 300 | 29 | 26 | 340 | 68 | 65 |
| August 31..... | 50 | 30 | 30 | 159 | 70 | 70 |
| September 1..... | .... | .... | .... | .... | .... | .... |
| September 2..... | 100 | 29 $\frac{3}{4}$ | 29 $\frac{3}{8}$ | 260 | 72 $\frac{1}{4}$ | 70 |
| September 5..... | 235 | 30 | 29 | 193 | 75 | 75 |
| September 6..... | 272 | 34 | 34 | 56 | 79 | 75 |
| September 7..... | 110 | 31 | 31 | 105 | 75 | 75 |
| September 8..... | 100 | 30 $\frac{1}{4}$ | 30 $\frac{1}{4}$ | .... | .... | .... |
| September 9..... | 100 | 35 | 35 | .... | .... | .... |
| November | 31,208 | 44 | 38 $\frac{3}{4}$ | .... | .... | .... |
| December..... | 15,943 | 48 | 39 | 2,607 | 99 | 94 $\frac{1}{2}$ |
| January | 9,604 | 47 $\frac{3}{4}$ | 42 $\frac{1}{2}$ | 5,521 | 99 | 94 |
| February | 7,024 | 46 $\frac{1}{4}$ | 43 | 1,333 | 97 | 92 $\frac{1}{2}$ |
| March | 30,438 | 58 $\frac{1}{4}$ | 42 | 2,938 | 99 | 93 |
| April | 25,625 | 60 $\frac{1}{4}$ | 53 $\frac{3}{8}$ | 3,251 | 99 $\frac{1}{2}$ | 94 $\frac{3}{4}$ |
| May..... | 24,999 | 57 $\frac{1}{2}$ | 33 | 4,835 | 91 | 80 |
| June..... | 5,474 | 45 $\frac{3}{8}$ | 34 $\frac{1}{2}$ | 2,323 | 83 | 74 |
| July..... | 2,774 | 38 $\frac{3}{4}$ | 25 | 1,504 | 77 | 65 |
| August..... | 3,525 | 29 | 17 | 1,943 | 68 | 50 |

AFRICAN RUBBER—LIVERPOOL.

TO THE EDITOR OF THE INDIA RUBBER WORLD: During the whole of August the market for African rubber has continued steady for all good descriptions. A considerable business has been done for arrival, in addition to spot business. All the available Accra Biscuits have been sold to arrive at 1/10 $\frac{1}{4}$ @ 1/10 $\frac{1}{2}$. We have to report a further fall in the price of low Accra Paste, and business has been done at 9d, 8 $\frac{1}{2}$ d, 8d down to 7 $\frac{1}{2}$ d. There are now buyers of this quality at 7 $\frac{1}{2}$ d. There is no stock in first hand goods of medium kinds, and we therefore cannot anticipate any decline in view of the better demand for African which comes regularly in the autumn. We quote as follows:

| | English price. | | Approximate price laid down in New York. | |
|---|--------------------|----------------------|--|-----------------------|
| | | | | |
| Soft Liberian | 1/1 | @ 1/1 $\frac{1}{4}$ | 26 | @ 26 $\frac{1}{2}$ c. |
| Soft Liberian (pasty) .. | 7 $\frac{1}{2}$ d | @ 8d | 15 | @ 16 c. |
| Hard Liberian..... | 1/3 | @ 1/4 | 30 | @ 32 c. |
| Accra, Saltpond, and Cape Coast Biscuits of fair quality..... | 1/9 | @ 1/9 $\frac{3}{4}$ | 42 | @ 43 $\frac{1}{2}$ c. |
| Accra Biscuits best quality | 1/10 $\frac{1}{4}$ | @ 1/10 $\frac{1}{2}$ | 44 $\frac{1}{2}$ | @ 45 c. |
| Addah Niggers..... | 1/8 $\frac{3}{4}$ | | | 41 $\frac{1}{2}$ c. |
| Prime Selected Sierra Leone Niggers.... | 1/6 | | | 36 c. |
| Grand Bassam and Assinee..... | 1/5 | @ 1/6 | 34 | @ 36 c. |
| Prime Gambia Niggers..... | 2/1 | @ 2/1 $\frac{1}{2}$ | 50 | @ 51 $\frac{1}{2}$ c. |
| Mixed Cameroon..... | 1/5 | @ 1/6 | 34 | @ 36 c. |
| Large Cameroon or Batanga Ball..... | 1/4 $\frac{1}{2}$ | @ 1/5 | 33 | @ 34 c. |
| Best Kongo Ball..... | 1/8 | @ 1/8 $\frac{1}{2}$ | 40 | @ 41 c. |
| Gaboon Ball (or second Kongo Ball).... | 1/6 $\frac{1}{4}$ | @ 1/7 | 37 $\frac{1}{2}$ | @ 38 c. |
| Thimbles..... | 1/6 | @ 1/6 $\frac{1}{2}$ | 36 | @ 37 c. |
| Flake | 1/1 | @ 1/1 $\frac{1}{2}$ | 26 | @ 27 c. |
| Lump Flake..... | 1/1 $\frac{1}{2}$ | @ 1/2 | 26 | @ 27 c. |
| Prime Black Manoh Twists..... | 2/3 | | | 54 c. |
| Old Calabar | 1/4 $\frac{1}{2}$ | @ 1/5 | 33 | @ 34 c. |
| Loanda Niggers..... | 2/4 $\frac{1}{2}$ | @ 2/5 | 57 | @ 58 c. |
| Benguela Niggers c. i. f. New York.... | 1/9 $\frac{1}{2}$ | | | 43 c. |

In London quotations for medium kinds are slightly lower, with the exception of Colombian Sheet, which has advanced to 2/6@2/6½. Considerable sales of Mozambique Sausage have been made at 1½@1/6, this marking a decline of 1½d@2d per pound. We append our usual statement of Liverpool rubber statistics for the month.

WM. SYMINGTON & CO.

Liverpool, September 2, 1893.

LIVERPOOL RUBBER STATISTICS.

| | Pará grades. | Africans. |
|---|--------------|-------------------------|
| Stocks, July 31 (pounds)..... | 1,393,280 | 1,225,280 |
| Arrivals during August..... | 1,178,240 | 669,760 |
| | 2,571,520 | 1,895,040 |
| Stocks, August 31..... | 1,330,560 | 1,303,680 |
| Deliveries during August..... | 1,240,960 | 591,360 |
| Deliveries during July..... | 1,050,560 | 421,120 |
| The stock of Pará rubber on August 31 consisted of: | | |
| | Fine. | Entre-fine. Negroheads. |
| First hand..... | 380 | 58 |
| Second hand..... | 89 | 3 |
| Total..... | 469 | 61 |

The stock of Ceará rubber on August 31, consisted of 681 bales; stock of Peruvian rubber, 60 tons.

IMPORTS FROM PARÁ.

THE imports in detail of rubber direct from Pará at the port of New York, since our last report, have been as follows, all quantities being expressed in pounds:

August 8.—By the steamer *Cearense*, from Pará:

| | Fine. | Medium. | Coarse. | Caucho. | Totals. |
|-------------------------|--------|---------|---------|---------|---------|
| Otto G. Mayer & Co..... | 24,900 | 400 | ... | ... | 25,300 |
| Lawrence Johnson & Co.. | 16,400 | 700 | 3,900 | ... | 21,000 |
| Shipton Green..... | 9,100 | 1,200 | 4,600 | ... | 14,900 |
| Total..... | 50,400 | 2,300 | 8,500 | ... | 61,200 |

August 12.—By the steamer *Salerno*, from Pará:

| | Fine. | Medium. | Coarse. | Caucho. | Totals. |
|-------------------------|---------|---------|---------|---------|---------|
| Reimers & Meyer..... | 105,700 | 8,600 | 57,400 | ... | 171,700 |
| Lawrence Johnson & Co.. | 11,400 | 1,100 | 30,000 | ... | 42,500 |
| Joseph Banigan..... | 18,600 | 6,400 | 9,000 | 2,800 | 36,800 |
| Total..... | 135,700 | 16,100 | 96,400 | 2,800 | 251,000 |

August 23.—By the steamer *Hilary*, from Pará:

| | Fine. | Medium. | Coarse. | Caucho. | Totals. |
|----------------------|--------|---------|---------|---------|---------|
| Reimers & Meyer..... | 69,300 | 5,000 | 62,800 | 1,900 | 139,000 |

IMPORTS OF CENTRALS.

BELOW will be found in detail the imports at New York, during August, 1893, of India-rubber from Mexico, Central America, and South America, other than Pará grades:

August 1.—By the *City of Washington*=Lagaria

| | POUNDS. |
|---|---------|
| Graham, Hinckley & Co..... | 1,000 |
| August 6.—By the <i>Bratten</i> =Central America: | |
| Eggers & Heinlein (Belize)..... | 150 |
| Andreas & Co. (Greytown)..... | 2,750 |
| Total..... | 2,900 |

August 7.—By the *Alto*=Colombia:
Pim, Forwood & Co.* (Cartagena)..... 7,575
Henry W. Peabody & Co. (Cartagena)..... 250
Total..... 7,825

*For London account.

August 10.—By the *Colombia*=Colon:
G. Amsinck & Co. (Panama)..... 20,400
Piza Nephews & Co. (Panama)..... 1,300
[Ex *Santiago*=Southern Pacific.]
Hirzel, Feltman & Co..... 2,000
[Ex *Manavi*=Southern Pacific.]

J. M. Ceballos & Co..... 1,500
G. Amsinck & Co..... 13,700
To Order..... 4,641
A. Santos & Co..... 5,682
C. Roldan & Van Biokel..... 2,977
W. R. Grace & Co..... 6,179
Flint & Co..... 2,000
[Ex *Acapulco*=Central America.]

J. Aparicio & Co..... 261
Total..... 61,286

August 13.—By the *Ciudad Condal*=Vera Cruz:

Thebaud Brothers..... 250

August 14.—By the *Alvena*=Greytown:

| | POUNDS. |
|--------------------------|---------|
| A. F. Strout..... | 13,600 |
| G. Amsinck & Co..... | 700 |
| W. H. Crossman & Co..... | 5,700 |
| Andreas & Co..... | 500 |
| Munoz & Esprella..... | 3,000 |
| Total..... | 23,500 |

August 17.—By the *Saratoga*=Mexico:

| | POUNDS. |
|-------------------------------------|---------|
| Jose Agostini (Frontera)..... | 150 |
| H. Marquardt & Co. (Vera Cruz)..... | 150 |
| Total..... | 300 |

August 18.—By the *Alamo*=Colon:

| | POUNDS. |
|-------------------------------------|---------|
| [Ex <i>San Blas</i> =Punta Arenas.] | |
| Ellinger Brothers..... | 191 |
| Munoz & Esprella (La Union)..... | 238 |
| [Ex <i>Colon</i> =Mexican ports.] | |
| J. Balz..... | 307 |
| W. Loaiza & Co..... | 800 |
| [Ex <i>Mapecha</i> =Guayaquil.] | |
| W. R. Grace & Co..... | 17,277 |
| Total..... | 18,413 |

August 20.—By the *Creole Prince*=Port Spain:

Thebaud Brothers..... 2,800

August 21.—By the *City of Pará*=Colon:

| | POUNDS. |
|--------------------------------------|---------|
| G. Amsinck & Co..... | 171 |
| J. Agostini (Panama)..... | 310 |
| G. Amsinck & Co. (Panama)..... | 1,775 |
| Piza Nephews & Co. (Panama)..... | 2,400 |
| [Ex <i>Arequipa</i> =South Pacific.] | |
| Hirzel, Feltman & Co..... | 2,100 |
| R. Barber & Co..... | 1,835 |

| | POUNDS. | POUNDS. | POUNDS. | POUNDS. | POUNDS. |
|-----------------------------|---------|---------|---------|---------|---------|
| New York Commercial Co..... | 40,500 | 6,500 | 6,300 | 3,500 | 56,800 |
| Joseph Banigan..... | 12,800 | 11,400 | 9,000 | 4,400 | 37,600 |
| Lawrence Johnson & Co..... | ... | ... | 34,800 | ... | 34,800 |
| Shipton Green..... | 13,100 | 2,000 | 6,500 | ... | 21,600 |
| Total..... | 135,700 | 24,900 | 119,400 | 9,800 | 289,800 |

August 29.—By the steamer *Clement*, from Manáos and Pará:

| | POUNDS. | POUNDS. | POUNDS. | POUNDS. | POUNDS. |
|----------------------------|---------|---------|---------|---------|---------|
| Reimers & Meyer..... | 64,400 | 16,900 | 16,300 | 2,900 | 100,500 |
| Joseph Banigan..... | 38,800 | 5,300 | 9,700 | ... | 53,800 |
| Boston Rubber Shoe Co..... | 21,400 | 4,600 | 5,100 | 2,000 | 33,100 |
| Lawrence Johnson & Co..... | 15,700 | 3,900 | 2,500 | ... | 22,100 |
| Herbst Bros..... | ... | ... | ... | 15,800 | 15,800 |
| Hagemeyer & Brunn..... | 9,600 | 400 | 1,400 | ... | 11,400 |
| G. Amsinck & Co..... | 700 | 100 | 500 | ... | 1,300 |
| For London, To Order..... | ... | ... | 11,600 | 36,400 | 48,000 |
| For Havre, To Order..... | 7,000 | 1,400 | 9,200 | 8,700 | 26,300 |
| Total..... | 157,600 | 32,600 | 56,300 | 65,800 | 312,300 |

September 2.—By the steamer *Catania*, from Pará:

| | POUNDS. | POUNDS. | POUNDS. | POUNDS. | POUNDS. |
|-----------------------------|---------|---------|---------|---------|---------|
| New York Commercial Co..... | 60,600 | 16,300 | 11,900 | ... | 88,800 |
| C. Ahrenfeldt & Son..... | 300 | ... | 3,600 | 25,000 | 28,900 |
| Joseph Banigan..... | 3,600 | 1,400 | 21,000 | ... | 26,000 |
| G. Amsinck & Co..... | 300 | ... | 1,900 | 13,900 | 16,100 |
| Sears & Co..... | ... | ... | 600 | 11,200 | 11,800 |
| Reimers & Meyer..... | ... | ... | 400 | 2,500 | 2,900 |
| Total..... | 64,800 | 17,700 | 39,400 | 52,600 | 174,500 |

September 8.—By the steamer *Paraense*, from Pará:

| | POUNDS. | POUNDS. | POUNDS. | POUNDS. | POUNDS. |
|-----------------------------|---------|---------|---------|---------|---------|
| Reimers & Meyer..... | 47,900 | 1,700 | 20,600 | ... | 70,200 |
| Lawrence Johnson & Co..... | 45,700 | 4,000 | 14,400 | ... | 64,100 |
| New York Commercial Co..... | 19,100 | 2,800 | 6,500 | ... | 28,400 |
| J. Banigan..... | 3,600 | 2,500 | 18,600 | 1,600 | 26,300 |
| Shipton Green..... | 6,400 | 800 | 3,900 | ... | 11,100 |
| W. R. Grace & Co..... | ... | ... | 10,200 | ... | 10,200 |
| O. G. Mayer & Co..... | 6,700 | ... | ... | ... | 6,700 |
| Sears & Co..... | 400 | ... | 100 | ... | 500 |
| Total..... | 129,800 | 11,800 | 74,300 | 1,600 | 217,500 |

| | POUNDS. |
|------------------------------------|-----------|
| August Imports of Pará rubber..... | 914,100 |
| July Imports..... | 579,200 |
| June Imports..... | 1,955,912 |
| May Imports..... | 1,367,600 |
| April Imports..... | 3,881,400 |
| March Imports..... | 2,107,600 |
| February Imports..... | 2,924,300 |
| January Imports..... | 3,349,000 |
| December Imports..... | 4,809,600 |

[Ex *Costa Rica*=Mexico.]

| | POUNDS. |
|---------------------|---------|
| W. Loaiza & Co..... | 2,644 |
| Hoadley & Co..... | 749 |
| Total..... | 12,387 |

August 22.—By the *Alert*=Central America:

Eggers & Heinlein..... 450

August 24.—By the *Niagara*=Frontera:

Jose Agostini..... 220

August 28.—By the *Andes*=Central America:

| | POUNDS. |
|----------------------------------|---------|
| A. F. Strout (Greytown)..... | 1,600 |
| W. R. Grace (Greytown)..... | 600 |
| Ellinger Bros. (Port Limon)..... | 1,050 |
| A. N. Rotholz (Port Limon)..... | 300 |
| Total..... | 3,550 |

August 30.—By the *City of Alexandria*=Vera Cruz:

H. Marquardt & Co..... 175

Total Imports for August..... 135,636
Total for July..... 293,526
Total for June..... 190,921
Total for May..... 257,481
Total for April..... 200,383
Total for March..... 277,459
Total for February..... 244,526
Total for January..... 222,308
Total for December..... 208,156
Total for November..... 297,100
Total for October..... 297,715
Total for September..... 140,756

NEW ORLEANS.

JULY.

| | POUNDS. | VALUE. |
|---------------------|---------|---------|
| From Nicaragua..... | 13,945 | \$5,309 |

